UNC-CH HEALTH SCIENCES LIBRARY
H00373238Q

The Library
of the
University of North Carolina

Endowed by The Dialectic
and
Philanthropic Societies
617.606
N864
v. 31-38
1905-1912

MEDICAL LIBRARY

This book must not be taken from the Library building.

E. A. Truckers Book
1905 — 1906

TRANSACTIONS

OF THE

NORTH CAROLINA DENTAL SOCIETY

Thirty-first Annual Session

Waynesville, N. C.

1 9 0 5

Commencing June the 28th

PUBLISHING COMMITTEE, J. H. WHEELER

PRESS OF JOS. J. STONE & COMPANY, GREENSBORO, N. C.

PROCEEDINGS

The thirty-first annual session of the North Carolina Dental Association was called to order at Waynesville, on Thursday, June 28, 1905, at 8.30 o'clock p. m., by the president, Dr. W. B. Ramsay.

The session was opened with prayer by Rev. Dr. H. D. Harper, of Kinston.

Dr. J. W. Way then delivered the address of welcome as follows:

Mr. President, Ladies and Gentlemen of the North Carolina State Dental Society:

It affords me much pleasure to meet you here and extend to you Waynesville's most cordial greetings. Dr. Smathers met me and stated that this honor had been conferred upon me; he asked me to meet with you this evening and express to you Waynesville's welcome. I appreciate the compliment of being invited to appear before you, but it made me feel that my friend Smathers was probably a much better dentist than he was a selector of men to make addresses. I have tried him as a dentist, I know he is all right; but I doubt his wisdom in selecting me as a speaker, especially in the home of orators like our Gilmer, and our Crawford, and our Abernathey.

Waynesville extends to you a cordial welcome, because we are always glad to see persons from the outside world coming to our little mountain city. Our little city has ambitions, it is ambitious to develop as a mountain resort.

We appreciate your coming here, because we recognize in you a body of the best citizenship of North Carolina; we recognize in your profession, gentlemen, a body of men banded together, whose life work has for its object the helping of their fellow-creatures. Gentlemen, while you have inflicted many, many pains (for which I pray God's mercy upon you, for I have sat in your beautifully upholstered chairs myself), that is only one side of the picture, and the other side is one that our statistics have not shown, and that is that within the last few decades the average life has been very much lengthened. The average man born today lives longer than he did a hundred years ago, and your murderers, the doctors (one of whom I am which), have received the credit. Your profession did its work but has not yet

received its full measure of credit for the work—the good work done in the mouth has exerted along those lines. Gentlemen, I congratulate you upon the fact that you are doing that good work, and am certain that in only a very short time you will be credited with the work that you have done.

I am advised that the last legislature placed your profession a little higher in requiring a degree before applicants presenting themselves before your board shall be licensed. I congratulate you, gentlemen, and am glad to note that as an evidence of progress; and I might say upon this subject, that we medical men look upon you as men in the field of medicine; we are glad to recognize you as such and are glad to have you as our assistants in treating our patients.

I might ask you why you don't have ladies in your profession, lady dentists, but perhaps you have plenty of dentists at your home town. We have in North Carolina quite a number of lady physicians and they are accomplishing good work.

As I have said in times past my dentist is a good man, but he has never been able to act upon my suggestion to let me send my teeth down and let him work upon them, and as yet I have to go and carry the teeth. But when I have sat and been tortured and racked, in that elegant upholstered chair of his, and thought of that hole he made in my mouth and wondered how big it was, and wondered if it was not large enough for the dentist and the chair and the office all to drop into, and about that time he quit, and I said "thank the Lord"; I wondered if it would not be easier if the hand that held that instrument was fair and feminine, instead of coarse and masculine. If there is any scarcity of doctors in your line, why not let the ladies come into the profession?

Dr. Smathers told me that I could have four hours for the delivery of these little impromptu remarks of mine.

Gentlemen, Waynesville is very glad to have you here. We welcome you here to the best the town affords; we hope that you are pleasantly located in our best hotels, and we welcome you to all that Waynesville has to offer to such a body of intelligent and distinguished gentlemen as I see before me.

Your profession, like mine, has its complex problems and its obstacles of the future, things that you do not know much about, things that you are hoping to know more about.

I congratulate you on this handsome body of men that compose your Society; I know that you are doing good work and I hope that this meeting may be most pleasant and profitable.

I welcome you to everything that Waynesville has, to her drives, to her mountain views, and I might welcome you to her mountain "dews" if you are inclined to that; and in short I welcome you to

everything that she has, and I hope that you may be so well pleased with the good things that you see up here, that you will, before you adjourn, pass a resolution that Waynesville shall henceforth and forever be your place of meeting.

Dr. V. E. Turner then addressed the convention as follows:

Dr. Way, Ladies and Gentlemen:

In responding for the North Carolina Dental Society on this occasion, I am not without a well-defined embarrassment incident to the want of experience and ability to perform the delicate task.

In listening to this address, filled with unmistakable cordiality, I have arrived at a conclusion upon a question which heretofore has given me some puzzling thought—that the world is growing better, that man is better than he ever was before. Among modern scientists there is a most profound belief that the true essence of religion is contained in the new commandment, ''love thy neighbor as thyself''. I don't mean that if some young fellow should find

''A trim little maiden of twenty
With virtues and graces in plenty'',

that it was his religious duty to love her as himself; that would be too easy; nor do I mean women especially, because that would permit most of us to walk in the ''straight and narrow way''. If we had that only as a test of spiritualism, there is hardly a man within the sound of my voice that would not be entitled to a seat in the ''amen corner''.

The world has reached an age of benevolence; millions upon millions of dollars are annually donated to the cause of education. The State and Federal governments are appropriating every year large amounts for the cultivation of the mind, and the blight of ignorance, with its accompanying vice, is fast disappearing in our fair land; the human mind is broadening and the human heart is becoming more responsive to the woes of others. Culture and refinement are becoming more common, not so much in the crowded cities, but in the towns and hamlets. Forty years ago there was not in the State a home for orphan children; now there are six or eight maintained and caring for the indigent orphan children, and how comforting must be the thought to the dying mother that her young children will be generously provided for. Forty years ago there was not a charitable hospital in the State, now there are eight, modernly equipped, and thousands can testify that rich and poor alike are received and cared for. There is

in existence in this State now a home for old ladies who have been so unfortunate as to be unable to make a living; and there are industrial schools and colleges and especially industrial schools for the education of women, which it is claimed renders them self-supporting and more independent. I believe the boys agree with me that the last object is not necessary, for they are sufficiently independent without it.

One hundred years ago the denizens of these mountains, with but few exceptions, were a rude and unlettered race, who lived in a most primitive way, without opportunity or desire for advancement, without more than cabins for homes and the forest for a hunting ground. Not wanting in independence and mental capacity, but without opportunities for mental culture. And now the children of these hills and mountains are among the most distinguished of our land—many statesmen of the highest type, renowned jurists, orators, and women of the most surpassing beauty and loveliness. And it may not be a peculiarity, but it is a fact, that these people who have been raised among these hills and mountains, are proud of the place of their birth, and love it equally as much as the Highlander loves his native hills, or the Irishman his native heath.

With such an environment and superior physical development, these people were ripe for mental culture, and tonight we are met by one of the most distinguished citizens, who bids us welcome in a most delightful "Way", to enjoy the most beautiful scenery on this continent, to meet amidst these delightful surroundings in the city of Waynesville, to view the flower-bedecked valleys and deep coves, to say nothing of the "mountain dews". As we journeyed here through these fertile fields and in the distance saw the waving fields of corn, I was struck with the fine prospect of good cheer; and with the vast possibilities of the marvelous transformations effected by "moonshine". I was reminded of what the patriotic Kentuckian said of his native State:

"I love thy birds of bright plumage,
I love thy rosy morn,
I love thy corn full of kernels,
And thy Colonels full of corn".

We accept with great appreciation the most cordial welcome which has been extended to us, and we feel that this will be one of the most delightful meetings in the history of our Society.

The secretary, Dr. Betts, of Greensboro, then called the roll.

It was then suggested that the minutes of the last meeting

be read, but upon motion of Dr. V. E. Turner, the reading of the minutes of the last meeting was dispensed with.

Dr. J. H. Wheeler was then called to the chair in the absence of the vice-president, and Dr. W. B. Ramsay, the president, then delivered the annual address:

Mr. President, Ladies and Gentlemen:

It is with grateful hearts and a sense of pleasure, that we are again permitted to put off the armor of our daily professional life, and retreat to this beautiful and restful spot of God's creation and mingle together in pleasant intercourse, sharing the good things which the experiences of another year have vouchsafed.

It affords me great pleasure, my friends, to thus greet you, at the beginning of this, the thirty-first annual meeting of the North Carolina Dental Society, and I hope that the few days we are to be assembled here may be both pleasant and profitable, and an honor to the profession we represent.

We have assembled here today in the name of an organization that means much to the dental profession of North Carolina, and which has wielded a mighty influence in shaping its destinies, and bringing to a successful issue many great reforms, and widening the chasm between the ethical professional gentleman, and the man wholly lost to virtue, and at the same time begetting a spirit of progress, research, and enterprise among its members, and developing a higher regard and more respectful consideration for each other. As it has been in the past, so we may reasonably expect the future to be. Let us hope for even greater things as the days and years come and go.

Upon the life and activities of this organization depends, to a large degree, the hope of dentistry in our midst, for it can not be denied that the North Carolina Dental Society has been a potent factor in the development of the dental profession as it stands today. To say that the profession has attained to its present sphere of dignity and high estate of usefulness by anything less than the profoundest thought, the keenest research, and most arduous labors on the part of the brightest intellects, would be to dishonor those unselfish men who have given the best years of their lives to the cause they love and for humanity.

I trust we may partake of their spirit and have something of their aspirations and zeal in this great and good cause, and grasp every opportunity and utilize every righteous means that is within our reach for the advancement and the upbuilding of the profession we love and honor.

Each one should feel a growing interest and a personal responsibility resting upon himself, and that it is your business and mine to assume the duties incumbent upon us, looking not to others to bear the burdens alone, in which we, too, should take a part. It is a duty we owe ourselves, the profession, and this Society that we take an active part and an abiding interest in all of its affairs, and if one can not write a paper or stand upon his feet and talk, your presence, alone, will add much to the encouragement of those who have cultivated the habit of saying and doing things.

The strength and influence of any organized body of men depends upon the ability and the individual efforts and activities of the membership composing that body, in thorough organization and concerted action in all things that look to the welfare of its membership and those whom they serve. But for the organized influences of the profession today, dentistry would be wholly at the mercy of the evil and destructive influences which beset it on every side, and it does seem to me that if we more fully realized this fact and appreciated the Society and the work it has done, we would be more willing to think and work and even make sacrifices for its strengthening and growth than we have heretofore been inclined to do.

The dental profession owes much to this Society and is greatly indebted to it for the exalted position which it holds today, and for the many fine influences set in motion for the betterment of its membership, and the protection and safeguards thrown around their unsuspecting and easily deluded patrons.

Would that the aspirations of all were as lofty as the beautiful mountain peaks which surround us here today, and our thoughts and conduct toward each other as pure and undefiled as the sparkling waters which flow from their side.

It gives me pleasure to say that much progress has been made along these lines, but nothing yet in this world has ever attained perfection, and there remains much yet to be done, so let us go forward with an earnest endeavor, with our faces steadfastly set toward the goal of our ambitions, and as we grow in years let us hope that we may grow in knowledge and wisdom, and that we may have developed within us those graces which make for the betterment, the peace, and happiness of mankind.

There is scarcely one of us but hopes to see the profession broadening and doing even greater things in the future than it has in the past, and to see the Society growing in numbers, clothed with greater power, and wielding a mightier influence over the destinies of the profession in this great commonwealth of ours. But, much as we desire that all good and ethical men will see things as they are, and be impelled to come in and join hands with us, and much as we covet a growing

influence of this Society, yet, after all, we should guard its portals with jealous care and scan most closely those who would enter, for there are many in our midst who are unworthy of the honors and the standing which they hope membership in this body would give them. My views of this matter may seem to some to be radical, but I take the position that if a man has ever prosecuted his business in direct disregard of the code of ethics and professional courtesy, that man should be forever debarred from membership.

Why should we take unto ourselves men as our associates who have never done anything but dishonor and prostitute their profession, and who had not the manhood nor courage to undertake the building of a practice for themselves by ethical means, who now come and ask for the honors of membership in their State Society, and association, with the very men whom they have all their professional lives ignored and sought to injure?

It is my opinion that we should speak out in this matter with no uncertain sound, and say to all such, you can not enter here; for the moment we admit them, we go before the world as endorsing their misdeeds and upholding them in their past conduct; but it should rather be known that anyone who holds membership in this Society has always been worthy of the honor, and has the confidence and esteem of the good and self-respecting men of the profession.

As long as professions exist, there will be reprobates in them all, and I believe one of the best medicines for their ills is the clear marking of the lines, and the separation made as complete as possible between the two classes.

I fear I have already tried your patience in the length of this paper, but there are two or three other matters which I wish to mention before closing. The first is the question of the interchange of license. We see much of this in the journals, and some are strongly advocating its adoption. I think the idea is an absurd one, and anyone who will stop and think upon this question, can not but see the evils which would arise from such a course, and if the matter ever comes before this Society, I hope we will take a firm stand against it.

The second point is the matter of enforcing the laws against illegal practitioners.

Now, I suppose this body rarely ever convenes without something being said upon this subject, and I hope you will pardon me for bringing the matter to your attention at this time, but all must admit that it is a live and vital question, and if we ever expect to rid the land of this evil, we must go at it in a systematic way, and with organized efforts. To do this will cost money, but I believe it would be worth having, of course, the co-operation of the members of the profession. all that it might cost. It is my opinion that this should be the busi-

ness of one man, who should receive a salary to prosecute this work, I might go on and point out to you the manner by which we might raise the necessary funds and show in detail how the plan could be successfully carried out, but will only mention the fact that the druggists of the State have such a plan in practical operation and claim success for it. I would suggest that the Executive Committee take this matter up and investigate it thoroughly and report the results of their investigation at our next meeting, with such recommendations as they may deem proper.

As the years go by, it seems each time we meet that it is our painful duty to chronicle the death of some one or more of the members of this Society. This time, God in His providence has laid upon us the hand of affiiction and removed from our midst our beloved friend and brother, Dr. J. H. Benton. Memorials have been prepared and a time designated in the program for these exercises.

One of the best meetings of this Society which I ever had the pleasure of attending was held at Winston under his administration.

Now, in conclusion, let me repeat and impress upon you the importance of your assuming some of the duties relative to this Society. You have chosen the dental profession as your life work, and by it you hope to live and prosper, so give it your hearty support and the benefit of your best thought and labor, and by so doing you will help yourself while helping others. "Greater is he that serves than he that is always sitting at meat."

Dr. Tucker then moved that a committee be appointed to report on the president's address, and the chair then appointed the committee, consisting of Dr. Tucker, Dr. Whitehead, and Dr. Alexander.

THE REPORT ON PRESIDENT'S ADDRESS

From the expressions we have heard from the different members of the association, the committee feels and wishes to assure our most worthy president that he has the endorsement of this Society, and will receive in the future their appreciation for giving strength and pointing out the way to attain a purer and more vigorous growth of this body.

We especially praise the high moral tone of his address and the suggestions embodied therein relative to dental organization, and regret that he did not dwell upon the importance of a complete system of unity, the culmination of which should be the ambition of every dentist in America.

His views regarding interchange of State licenses are timely, and should the question ever come up for serious consideration it should be treated with caution, as it seems to be one of grave foreboding.

Respectfully submitted,

E. J. TUCKER,
C. A. WHITEHEAD,
CHAS. L. ALEXANDER,
Committee.

Dr. J. R. Edmondson then addressed the meeting, his subject being "Little Things and Their Importance".

LITTLE THINGS AND THEIR IMPORTANCE

It is eminently proper that we should, at least once each year, lay aside the duties and cares of everyday life, and meet at some pleasant resort for the purpose of recreation and rest. Last year it was our privilege and pleasure to assemble at Morehead, near the majestic old ocean, where, fanned by the balmy breeze, we could be lulled to peaceful rest by the eternal music of the rolling waves. We thought that was a delightful resort, and so it was; but equally pleasant is this little town situated in this delightful valley overtopped by some of the grandest summits of the Balsam Mountains.

As we come from every section of North Carolina, many of us beset with cares, and wearied by the trifles which pull us down, as if they fain would bury us in the valley where we live, we feel as did the sweet singer of Israel when he cried from the depths:

"I will lift up mine eyes unto the hills,
From whence cometh my help".

As we gaze with ever-increasing wonder and admiration upon these circling hills, they seem to answer our unspoken wish with proffers of welcome and peace. Calm and aloft they call us from their solemn heights, they bid us trust ourselves to their great embrace, to breathe their serene and unvexed air, and to learn from them how to remain firm and unshaken in sunshine and in storm.

Sacrilegious does it almost seem, to call your attention once more to the trifling affairs of life, when Nature, anxious to display her charms, claims so much of our time. But recreation, my friends, however beneficial to the careworn man, is not the sole object of our meeting. We should endeavor not only to enjoy the sweet compan-

ionship of nature and of each other, but grasp this excellent opportunity to interchange our ideas and discuss those subjects, a knowledge of which is essential to a greater success.

I wish, therefore, very briefly to invite your attention to a much-neglected, but a very important subject, viz.: The importance of little things. Too many of us, I apprehend, are prone to despise the day of small things, forgetting the fact that nearly always the little foxes are the ones that spoil the vines. Could we call up that great multitude of young men who have entered the various professions of life, with the brightest prospects, only to meet with wretched failure, and ask them the cause of it all, they would, in the light of an experience never to be forgotten, confess that it was an utter disregard for the little things of life. Ask the men who have forged their way to the front in every walk of life, the benefactors of mankind, the makers of history, ask them what is the key to success and they will tell you a proper regard for the small things is necessary in every undertaking. It is the little courtesies of everyday life which make life worth living; so the details are the bone and sinew of any success.

It was a little thing, thought the captain of the Assyrian host, to dip seven times in the waters of the Jordan, for the healing of his plague, but it had to be done before relief could be found. It was a little weapon in the hand of a little foe, thought Goliath, the giant, as that tender shepherd lad, with his little sling, met him upon the bloody field; but that little sling, properly used, sent its message of death to the vaunting giant, caused his ponderous sword to drop from his nerveless arm, and sealed forever his blasphemous lips. It was the absence of a little bridge that caused the delay of the reinforcements, for which Napoleon so eagerly looked on that fatal day at Waterloo. A little thing it was, but great enough to cause Napoleon's defeat and give the victory to the British troops.

The importance of little things can only be understood when we duly appreciate how almost entirely life is made up of what we term little things. The sea is composed of little drops of water. Little grains of sand compose the soil. Time is so precious that it is given to us in little minute periods, and one is always taken away before another is given. Then let us improve each golden moment, that the hours and days may be rich in noble deeds and bright rewards. It is the little deeds done during these little periods that make our lives and characters what they are.

"Heaven is not reached at a single bound,
But we build the ladder by which we rise
From the lowly earth to the vaulted skies,
And we mount the summit round by round."

If then, a strict and proper regard for little things is essential to success in every calling of life, how important that we, as dentists, pay the closest attention to the details of our professional duties and labors. Without this attention, genius and skill will avail us naught. There are certain kinds of work which most dentists perform with care. Of these it is useless to speak; but on the other hand we find many things about which we are sometimes careless. It is to some few of these little things I wish now to invite your attention: The first is in the way we deal with our little patients and their teeth. Can we wonder that the Savior said, "Suffer little children to come unto me"? Nothing can be purer and sweeter than a little child in its natural and sinless state. Most unfortunate, indeed, is the dentist who does not love, and is not loved by little children. I fear that too many of us fail to fully appreciate what a privilege it is to have them come to us for our services. It gives us an opportunity to share in a great measure in shaping their destiny by preparing them to enjoy life's future blessings.

The care of the temporary teeth, I believe, is more often neglected than almost anything else with which we come in contact. A glance at the permanent teeth that come under our observation will show us how sadly the deciduous teeth have been neglected. Too often do we see contracted arches, irregular, decayed teeth, and untold suffering, all because the little teeth were not cared for and kept in place until nature's time for throwing them off.

If we are ever to raise ourselves and our profession to that exalted place it deserves to occupy, we must give our little patients more attention, and wage a crusade against those careless guardians who, through avarice, deprive these little creatures of their inalienable rights. This can be done by winning the love and good will of the children, which is invariably followed by that of their parents. And while we are caring for the teeth of our little patients let us not lose sight of the fact that there is a work we can do, and which it is our duty to do, which will last when our dental work shall have passed away.

Every dentist is anxious that the work he does on teeth shall stand the test of time. Let every one be equally anxious that the impressions he makes upon the young and tender minds stand the test of eternity.

With one exception, and that of a gospel preacher, a dentist should be the cleanest man on earth; and by cleanliness I don't simply mean he should be clean in his person and office, but his inner moral life should be spotless and pure. Then never let him allow a patient, especially of the little ones, and more especially the boys, to leave his office without having planted in that young heart and mind some

pure thought. The dentist who does not take advantage of these little opportunities fails just that much to do his whole duty.

In the second place let us notice the carelessness manifested in amalgam work. I believe there is not a filling material quite so much abused as amalgam; and yet, if properly worked, it is one of the greatest blessings, not only to dentists, but to humanity in general. It is here again that the little things left undone cause the failure of so many of these fillings. Let us be as careful in separating teeth, preparing cavities, mixing and washing amalgam, using rubber dam and matrix, and lastly polishing fillings, exercising as great care with amalgam as with gold, and the results will be more satisfactory to our patients and more gratifying to ourselves than ever before. To neglect any of these apparent trifles will result in failure just as it will with gold or any other filling material.

Now the third and last thing in this connection is the failure of so many of us, when we get a patient, to first clean up the field of operation. True it will require a little time, but no time could be better spent. This is important for several reasons: First, it impresses the patient in the beginning that he has been careless and uncleanly; second, it is not only more pleasant to the patient, but also to the dentist, and it enables the latter to see more clearly what he is doing. Too often do we see teeth with beautiful gold fillings in them almost obscured by the tartar and filth which the dentist should have removed.

Again, it is a little thing to put a piece of rubber between the teeth for separation, but to the person who owns the teeth it is a great big thing, therefore, cotton is always preferable for separating.

Before I conclude this paper, allow me to mention one more serious little mistake which is made by some dentists, I mean the failure of some to keep their own mouths and teeth in a clean and healthy condition. It is our duty, occasionally, to do professional work for our fellow dentists, and such being the case we sometimes get a view of their teeth. The condition in which some of these brethren keep their own mouths is a sad commentary on our profession; and is enough to make us exclaim, on looking into them, Unclean! Unclean! Don't think our patients fail to notice this. They do notice it, and it is a wonder if they don't sometimes say to those careless brethren, "Physician, heal thyself". I know of nothing which will so commend the young dentist to the public as a beautiful well-kept set of teeth, and on the other hand I know of no calamity which can overtake any dentist, which will more seriously impede his real progress, than to fall into the habit of carelessness, especially along this line.

These, my friends, are some of the little things to which I desired to call your attention. Of course, there are many more which we are

liable to overlook, but if these which I have mentioned and tried to discuss in my feeble way, shall cause some brother to realize more fully than ever before the importance of the little things of life, I shall feel that I have been amply rewarded for the little bits of time snatched from a busy life, to prepare this very imperfect paper. The Bible, compared with the great libraries of the present age, is a very little book, but it contains the sublimest truths ever uttered, and among them all there is none greater than this: "He that is faithful in that which is least, is faithful also in much: and he that is unjust in the least, is unjust also in much".

"Then let us be up and doing,
With a heart for any fate,
Still achieving, still pursuing,
Learn to labor and to wait."

Dr. Fleming stated that Attorney-General Gilmer, of Waynesville, was present, and moved that he be requested to address the meeting. This motion carried.

Attorney-General Gilmer then addressed the convention as follows:

Mr. President, Ladies, and Gentlemen:

I am very grateful for this recognition of my presence, and though I did not have the pleasure of hearing Dr. Way's address, I can say, without knowing what he said, that I endorse every utterance that he made. I know him to be an expert public speaker, and I know that he extended to you cordial words of welcome.

I shall not detain you, because I know that you have an extended program for the evening, but I will say that I like to meet you, I like to meet you unprofessionally; I would rather shake your hands than to be shaken up by you, even though reclining in one of your luxurious chairs.

I repeat the words of welcome as delivered by Dr. Way; we are truly gratified that you have selected Waynesville as the place of your meeting. We love our friends from way down where the evening wind impinges back upon the great mountains, where you look upon these lofty peaks as they rise in the sky, as a blue line that rises high in the heavens.

We have peaks here that my friend Dr. Tucker can stand upon and "tickle the feet of the angels". We are glad to have you here

to look upon these mountains; they will inspire you. We love for you to bask in our sunshine, though we have not had much of it today.

We have beautiful peaks at Waynesville. I have stood upon the peaks of these mountains, beneath skies as beautiful as those of Naples, as beautiful as any seen in Christendom. I have stood upon these lofty peaks and witnessed a most remarkable scene. I am going to tell you what I have seen, though possibly some of my friends here have seen it too. I have witnessed, as I stood upon these mountain peaks near Waynesville, a sight that seldom falls to the lot of man to see. Standing upon the topmost peaks of these mountains, I have been under a clear sky, in a serene atmosphere, and have looked down at my feet and have seen the clouds gather, and the lightning's red glare as its blaze fell upon the storm clouds, while all about me was bright and beautiful.

I wish to say that I was very much impressed by the eloquent address of Dr. Edmondson, who appealed to the members of this organization, as he appealed to each member to rise above petty things and stand upon an elevated plain of professional life, above the clouds and the storms that gather at his feet.

It affords me pleasure, though I know that my friend, Dr. Way, has already extended to you words of welcome, to add my welcome, and to congratulate you that you have selected Waynesville as the place of this meeting, and I thank you, friends, for the courtesy of this floor.

The secretary then announced that the next item on the program was the report of the standing committee.

The next paper was that of Dr. J. H. Judd, entitled "Ethical Dentists vs. Ethical Dentistry". Dr. Ware arose and stated that Dr. Judd was not here, but that he had a copy of his paper, sent to him some weeks ago. Upon request, Dr. Ware read this paper.

ETHICAL DENTISTS VS. DENTAL ETHICS

Ethics, as given by some authors, is the science of morals. The word ethics may be used in a more or less comprehensive sense; in a more comprehensive sense it takes in man's moral duty, not merely to those individuals with whom he may come in contact, but also the body politic of which he constitutes a part. It is conclusive from the foregoing that dental ethics in a more comprehensive sense would take in our moral duty, not only to our patients, but also to our pro-

fession as well. Hence, we see that it is impossible to be ethical in its fullest sense without having a very high regard for both our profession and our patient; to be unmindful of the interests of either would be very unprofessional and immoral.

John S. Mills considers ethics not a science but an art. The imperative mood he regards as characterizing art and not science. Whatever speaks in rules or precepts, not in assertions regarding matters of fact, he regards as art; and tried by this test ethics and morality are properly a portion of the art corresponding to the science of human nature and society; the remainder consisting of prudence and policy, and the art of education. Whether it be an art or a science, we know there are rules, and there are precepts to be observed in any kind of ethics; and any scientist who will not be governed by these laws of obligations, is not worthy of the name.

Paley says that moral philosophy, morality, ethics, and natural law, all mean the same thing, namely: that science which teaches men their duty and the reasons of it. Here we have another writer who says that it is a science. While men differ on technicalities, we find them agreed on the vital point, namely: that it involves duty and obligation—and there are no duties without reasons for them. Every professional man is under great obligations to his professional ancestors for what they have handed down to him, in maintaining and advancing the standard of professional excellency, obtained by, or delivered to them. It behooves him to be faithful to that trust, and in turn to aid in any way possible to maintain and advance this standard to be handed down to his professional posterity. We should make a practice until it becomes a habit of trying every today to improve on the yesterday. We want to be practical as well as theoretical in our professional ethics. We are told by Matthew Arnold that ethical means practical; it relates to practice or conduct passing into habit or disposition. We should practice upright and cleanly habits of living to obtain the respect due a man in so noble a profession as ours. We must deal fairly and squarely with our patients; otherwise confidence will be shaken in our integrity, and in some degree the profession injured; for, when one member is affected the whole body suffers in consequence. We should study our relationship one to the other, and the duties involved in that relationship, as well as to our patients.

The business world is on its head, so to speak, in its mad rush for gain, and it becomes us as professional men to watch lest we fall into the tide of this unprofessional sentiment, to the detriment of a noble profession of which we constitute a part. We should not let the get-rich-quick sentiment overcome the nobler elements of our character. It is right and fair that a man should have a just compensation of

reward for honest work faithfully performed. But the faithfulness of the work should have as much consideration as the justness of the reward. Honest competition should not make us less faithful to our trust. Harsh criticism of another will not, in the end, make any gain for one's self. While charitable criticism may often prove helpful, I have no sympathy for the man who starts out advertising as a tradesman, and he truly deserves the contempt of all self-respecting people. But when it comes to a matter of simply cutting prices without making public notice of it, there are a great many young men who do it from financial necessity, not being able to compete with well-established practitioners, and receiving no sympathy from them, decide that it is root-pig-or-die, and close their eyes to everything but self preservation, which is Nature's first law, and Paley says that natural law and ethics mean the same thing. I would not make the impression that I would encourage any dentist in doing this. But I have more sympathy for and indeed more patience with him than his better-established competitor who, instead of befriending or trying to encourage such a one, as a trust or monopoly tries to freeze the little fellow out.

Gentlemen, here is thinking ground for you. It is not my purpose to make a play to the galleries, and if what I have said applies to any man of this Society, let him first get the beam out of his own eye that he may see more clearly how to get the mote out of his brother's eye. The object of this paper is to try to point out some of the causes for non-ethical men, and the remedy therefor. If I do this I have done well. If not, let it go for what it is worth. I know personally of a few older men in this Society who, I think, do more to encourage young men and draw out their professional pride, and to stimulate them to high ideals by showing their personal sympathy for them, than anything that I have heard said or seen written on this subject. I'll not call their names but many of you will know to whom I have reference. I don't mean they are the only ones that do this. But I do think that if that spirit were encouraged and practiced by influential men—and we all have some influence—it would go a great ways toward keeping and developing the nobler elements in the character of a great many young men—who, I am inclined to believe, in most cases, start with good purposes in view. I believe in stringent measures for those who will not heed gentler ones. I agree with Dr. Carr in his paper read before this Society, and since copied in Dental Hints, that a bill should be properly framed and gotten through the legislature empowering the State Examining Board to revoke license from those who persist in their mercantile manner of degrading a profession into which they have gotten for no higher purpose than displaying their knowledge of the science of dentistry

in great flaming advertisements to catch those who may not be wise enough to "beware of imitations".

It has been said that all men not being born equal is the great reason why we have some who are totally devoid of ethics. That may be true in some measure—surely there are born idiots and people of unsound mind; but outside of these no man can blame Creation for his lack of principle or character. His early training may be at fault —but surely not his creation. For this reason I think that our dental colleges should give thorough instruction on, and as much as possible instill into the students the principles of character and right living. It should have fully as much emphasis here as at our literary colleges —and a college or school of any kind that does not develop the moral as well as the mental powers of man is a failure—yea, even dangerous.

If all our young men taking up the study of dentistry were moral men before, or should become so during their course of instruction, there would be no need for a code of ethics in the State Dental Society—except, peradventure some fell from grace. You remember the Scriptural teaching that says "train a child in the way he should go and when he is old he will not depart from it". This bears out the statement that colleges should teach students dental ethics along with their other branches in the course of dental education. There has been a great deal written and a great deal said on this subject. But it strikes me that a little action would come in right well to give a little more emphasis to what has been said and written.

I think the following lines in Longfellow's "Psalm of Life" very appropriate for the closing of this paper:

Then let us be up and doing,
With a heart for any fate;
Still achieving, still pursuing,
Learn to labor and to wait.

DISCUSSION

Dr. Ware: I wish to say that I am very sorry Dr. Judd was prevented from being present to read his excellent paper. It seems to me that if we would stop long enough to consider this subject properly and realize fully what it means, it would hardly be necessary year after year to have the subject discussed. We agree, when we join the Society, to abide by the Code of Ethics. When we permit others to unite with the association we believe them to be men who know the golden

rule, and who will live up to its precepts. But, as the brother has intimated, in this strenuous life, this rush to get rich quick, too many of us, I fear, scarcely wait to see what is our duty to our fellowmen, our patients, or brother practitioners. Let us cultivate kindness, consideration, and thoughtfulness towards others. How refreshing it is for us to assemble from year to year, become better acquainted, more closely united, and to establish a kindlier feeling throughout the profession! These annual meetings have had a great and good effect upon me and others whom I know. They have caused some of us to organize district and county associations. In these meetings we are drawn closer together than in the State Society. I know of nothing that will benefit our State association more than district and county associations. "Dental Ethics and Ethical Dentists" will grown and flourish in both. Cultivate well these fields, and soon malpractice, discourtesy, and charlatanism will be heard of no more, the golden age of dentistry will dawn in the good old North State, and "mercy and truth shall meet together and righteousness and peace shall kiss each other".

Dr. Turner: Mr. President, I was greatly interested in the paper and enjoyed the remarks of the gentleman who has just seated himself. With all the definitions that have been made, it does seem to me that no intelligent gentleman would need any instruction upon the subject of ethics. A man who is disposed to be selfish, can't be a gentleman, and can't be an ethical man; or rather I mean a man who is selfish and exercises selfishness. It does seem to me that this is the very groundwork upon which our Society is built, it is our "sheet-anchor", and as Dr. Ware well appreciates, the meetings of this Society have brought the members into closer friendships, and as a matter of business, each member ought to take great pleasure in being just and generous towards his fellow practitioner, not only in his own place of residence but wherever he may be.

This question of ethics is one that is generally discussed and prevails all over the country, and it is very difficult to deal with when there are a great many men in the dental pro-

fession who haven't the faintest conception of what it means to be a dignified professional gentleman. I mean the man who seeks to make a living out of dentistry, instead of plowing corn. It is unfortunate that men go into professions without any education, but a man whose heart is just and who has a proper ambition, can overcome all those difficulties. And I have known men in my own experience who had very limited educations and very limited means who have been able to qualify themselves to become as high in the profession and as ethical as anybody.

As to this question of the violation of the laws of dentistry, I find that it has been more flagrant here than anywhere else. I have learned that there are men in this country who most flagrantly put up their signs, have their cards, and practice dentistry, when they are subject to indictment and fine for violation of the law. Until the people of the country learn to recognize the difference between an honest man, and one of doubtful honesty; until the people cease to encourage a man who violates his professional duties; I don't know what we can do. It is often urged that a man in some locality, in violation of law, is practicing dentistry, that the members of the profession have great hesitancy in bringing knowledge of it to the proper authorities that these men are violating the law. feeling that it would be prejudicial to their interests to be considered as informers. But we will have to take the responsibility of doing our duty in this matter, or else the evil can not be remedied. I feel that the Society has done me an honor frequently to empower me to enforce the law by furnishing the means to punish violators. Members will come to me and say, "this man is violating the law openly", and my reply always is that if you will get a witness or two witnesses, upon whom you can rely, I can have the man stopped by employing legal help and notification to the solicitors, but when they come to furnish witnesses, they won't do it, so that the dental profession is very much to blame, and when I say "dental profession" I mean the ethical dentists; they either do not care or else are afraid of the responsibility.

Dr. J. R. Osborne: While we are on that line, I would like to know how it is that we passed over the report of the standing committee? I thought I was one of that kind, one of some kind, I did not know whether I was "standing" or "sitting". The secretary says that there is no such committee in existence. I got notice that I was on that committee. That committee of prosecution, I want to know what that committee is?

Dr.....wants me to say that a gentleman of my profession wrote to Dr. Harris, who was supposed to be in charge of that committee, and he said that there was no such committee in existence. If I am wrong about it, I am willing to be corrected. I want to know about it. I am a sort of pulling horse, but I want you to push me right. If that committee has "died in the shell", I want to know something about it.

(The secretary then referred the speaker to a list of the committeemen of that committee in the back of the printed proceedings.)

Dr. R. H. Jones: It seems to me that I recollect something about that committee, one from each judicial district, that should be appointed by the president of the Dental Society, and the duty of the members composing that committee was to report to the solicitors of the districts those who might be violating the dental laws of North Carolina, so Brother Osborne can consider himself as being in.

Dr. J. R. Osborne: I am glad you told me. I say that you never did anything like that yourself. If you don't believe that is a big business, you try to get a case before the solicitor. I have never seen a solicitor yet who would do his duty along that line, and it is not worth "two hurrahs in Hades" to go and tell the solicitor about it. If that is all the committee has to do, I am willing to do that, but it is not worth anything; there has got to be something else tried, and what I want to know is, if it is the duty of the members of that committee to prosecute to a successful issue the violators of the law; if so that is a pretty big job, and I don't know that I would like it, I don't believe I want to serve if it is my duty to go ahead and

see that these men are prosecuted to a successful issue. I know what I am talking about. If this Society does not intend to back up the prosecutions. then we will not succeed. If one man is expected to do the work it will hardly be done.

Dr. Ware: I fully agree with what was said by the gentlemen just on the floor, Dr.....and Dr. Osborne, but I want to know if we are not a little bit off the subject. Dr. Osborne is speaking of a thing that would come a little more under the work of another committee.

Dr. Osborne: Everything that is worth anything in dental ethics, can be written in one sentence, "do unto others as you would have them do unto you". It is a pretty hard matter to make a man learn that, if he don't learn it from his mother's knee. Society work is a good thing, but it don't make horses out of mules. Dental ethics, as I understand it, is the way we treat other people. The patient has rights, we have rights, and our fellow-practitioners have rights, and if a fellow has the right sort of a gizzard in him, we can get him to doing that sort of work, but if he is not that kind of a fellow, it is a pretty big job. I have tried it a time or two.

At this point the Society took an adjournment until tomorrow at 10 o'clock a. m.

SECOND DAY—MORNING SESSION

At 10 o'clock a. m. the convention re-convened, pursuant to recess taken, and Dr. E. O. Chambers, of Asheville, read a paper entitled, "Materials and Appliances".

Dr. E. O. Chambers: I feel that I owe the Society an apology before I read my paper. I feel that you should have selected a member who would be able to present a better paper than I can, and I feel that the subject of my paper is one that is very difficult to deal with, and feel sure that some other member could have prepared a better paper.

MATERIALS AND APPLIANCES

In dealing with the topic assigned me it requires but a few min-

utes for me to prove to this intelligent body my inability to do so important a subject justice. If I can only present one thought that will be of benefit to someone, and induce some of my senior co-laborers to give us some of the valuable things they have in store, I will feel more than paid for the effort I have made in trying to write this paper. It is true that the success of our operations and the preservation of the teeth depend largely on the materials and appliances used. It is impossible for me to cover the entire field which this topic includes, so I'm forced to confine this paper to a few things or points which I consider to be of most value and service to both the operator and the patient.

The first thing of importance we will consider is where the teeth are so closely approximated it is necessary for us to produce ample separation in order to give us approach and also allow the proper adjustment of a matrix. In obtaining space there are many different devices or appliances and materials to be used for this purpose. Gentlemen, I consider the separation of the teeth a very important factor in dentistry for two reasons; first, it is necessary for us to have ample space to enable us to do the best work we are capable of doing; and second, usually it is uncomfortable and painful for the patient. So I hope if anyone has a method or methods by which they can obtain results wished for and without discomfort or pain to the patient they will pour forth the glad tidings which will bring joy and comfort to both ourselves and the patient.

If you will pardon me for relating personal methods of gaining space I will do so, and hope this progressive body can give some improved methods by which space can be obtained. In separating bicuspids and molars for occluso-proximal cavities I usually move the decay and dress the cavities for filling, or so near as the case will permit; then I exclude from the cavity the secretions of the mouth, then take a piece of cotton in the form of a bat or roll and by the use of a wedge-pointed instrument pack the cotton into the cavity tight and a little full in occlusal surface, allowing it to remain from 24 to 48 hours. If at that time I have failed to obtain enough space I repack. After gaining sufficient separation and preparing the cavity for amalgam fillings, next comes the adaptation of the matrix for the case. I find in my hands the Ivory Matrix No. 1, the best matrix for the molars, and the No. 2, the best for the bicuspids, the only difference being in the length of the appliances. I can not always get perfect adaptation when first applied to some teeth, especially bell-shaped teeth. In such cases I force the matrix to take its place by packing guttapercha or by the use of a soft pine wedge. In adapting the matrix, great care should be used in securing the proper adjustment and that it shall be maintained in proper position during the con-

densation of the filling. The matrix should be so thin that when the filling is condensed and when moved there is practically no space left and the filling be against the approximating tooth. Just here I want to emphasize one of the most important points in the practice of dentistry, i. e., the contact points of fillings. We should never (when possible to avoid it) allow our fillings to approximate by large flat surfaces or with sharp angular edges at the occluso-proximal portion. A filling should approximate or come in contact at the knuckle portion of the tooth and retain a slight convex surface restoring the natural contour of the tooth, leaving ample space at gum margin to allow a thorough cleansing of the interdental space.

With the use of the matrix a tooth may be filled and the proper contour restored with less separation than where it is not. For the insertion of an amalgam filling, and where the adaptation of the matrix is not what is desired, pass a silk floss or a small rubber band down between the teeth just prior to the insertion of the matrix, let floss or band remain until the filling is inserted, then move matrix buccally or lingually; after the band is moved use the floss or rubber band for moving any surplus of amalgam that may escape, due to imperfect adaptation of the band at the gingival margin.

For gold fillings adapt the band same as for amalgam. After adapting it and before placing gold in cavity we should always pass a suitable instrument around the matrix wall to see if there is spring enough to allow the first piece of gold to be forced between the matrix and enamel edge. We should also be careful to keep the matrix sufficiently away from the cavity during the operation to admit of carrying the gold well over the enamel margin. Many of us find the matrix indispensable in our hands for gold fillings in the disto-occlusal cavities in the posterior teeth, and in many cases by its use both operator and patient avoid a nervous strain, and a long, tiresome operation. If we adjust the matrix properly and use proper care and precaution in the condensation of the gold, there is but little polishing necessary, and often the use of the burnisher is all that is necessary for the completion of the filling except the occlusal portion.

Briefly we will consider the separation for gold fillings and inlays in the cuspids and incisors. It is absolutely necessary for us to have ample separation of these teeth in order that we may be able to give them the proper contour and to allow us to polish the fillings without grinding away the knuckle portion of the teeth. In separating the anterior teeth where the cavity walls are broken down, prepare cavities for filling so near as possible, then use the mechanical separator and if ample space can be gained, insert the filling or fill the cavity with guttapercha and give the patient another sitting. If we fail to obtain ample space by the use of the separator, we should pack the

cavity as tight as possible with dry cotton and give the patient another sitting. The expanding of the cotton, due to the absorption of moisture, produces in a great many cases a surprising amount of space. The separation for small proximal cavities, where the walls are not broken down, take a piece of silk floss and shred it with the point of an explorer, then take the shredded floss and touch to some loose fibers of cotton and twist the floss between the thumb and finger, winding up enough cotton to make the size desired. In this way we get the fibers interwoven in the shredded floss and can obtain a pointed roll of cotton and floss that may be passed between the teeth at gingival border, and it can be pulled between the teeth at gum margin without the floss slipping through the cotton. After pulling floss and cotton tight between the teeth at gum border, then pull it toward the knuckle of the teeth, then bring end over between incisive angles and tie on labial surface; after tied, take a wedge-pointed instrument and wedge ends in between teeth. If necessary, repeat the separation until ample space is obtained.

My experience is, a great many wear this separation where they will not tolerate any other, and have less soreness than where a wedge or rubber strip is used. In these small cavities we meet with more failures than any other class of cavities, and I believe our failures are due to the lack of ample space more than any other one cause.

Gentlemen, I hope you will bring out in the discussion the different materials and appliances used for separating the teeth.

The different kinds of materials used for fillings.

The indication, advantages, and disadvantages of using certain materials.

Where, and under what conditions, may certain materials be excluded or used?

The combination of different materials for filling.

Dr. Griffith, of Salisbury, chairman of the Executive Committee, then read the report of his committee.

There is nothing so important to our Society as that of "guarding the portals," and not receiving members who are unworthy to be members of this Society, and so far as the Executive Committee is concerned, we have acted in accordance with the lights before us. We have made some effort to ascertain the standing of these gentlemen, and those that we have recommended, we are, as an Executive Committee, willing to vouch for, but I would be glad for the Society to take a hand in this, and if necessary turn us down in our recom-

mendations. Guard the portals: these men can suffer, but the Society must not suffer; I would rather come in with twenty-five good names than two hundred and fifty bad ones. I will state those which we have recommended:

Dr. A. H. Fleming: I suggest that the discussion of Dr. Chambers's paper be had first, before the election of the new members, as it would show more courtesy to the paper that has been read, and the members will forget the points in the paper if the discussion is postponed.

Dr. E. O. Chambers: I move that the balloting for the new members be proceeded with. This motion was seconded and carried and the convention then proceeded to the election of the new members.

Dr. Griffith: I have an application here which I regret to say the Executive Committee had to reject. The gentleman was present, but on account of sickness in his family he had to leave and go home, and will not be here to sign the constitution and by-laws, and we do not feel that we have a right to admit him.

Dr. Tucker: I move that the action of the executive committee be adopted by the Society.

Dr. Ware: Does that mean that the gentleman is rejected?

Dr. Griffith: It means that unless he can sign the by-laws before the Society adjourns, we can not see how he can become a member.

Dr. Ware: The gentleman is Mr. Self, a very gentlemanly young man and I should regret to see him rejected.

Dr. Turner: I think that we must have some rules to govern us. It is not a reflection upon the man, but it is merely a case where he is unable to comply with the rules of the Society.

Dr. Betts: I would like to say for the benefit of the Society, that whenever a name is proposed to the Executive Committee to consider, his name is voted upon and he is accepted or rejected; and if he is accepted, it lays with the secretary to get his signature to the constitution and by-laws. We have had men accidentally fail to sign the constitution and by-laws. This proposition is a little dubious, but what assurance have

we that John Smith, who was voted upon this morning, will be here to sign the constitution and by-laws? Is he to be barred from the Society. He was accepted and gave the fee to me, and he says that on account of sickness in the family he has to get away. If anything very serious comes up we can make certain other arrangements. I think it is "much ado about nothing", with all due respect to the Executive Committee.

Dr. Turner: If we have a law by which the Society is governed, we can't vary it to suit every case, and it is the candidate's duty to inform himself as to his rights. In this instance he got a telegram that his wife was sick, and he wanted to join the Society, and we let his application go in with his five dollars.

Dr. Tucker: I grant you that there are a number of cases that would seem to justify this irregular action. I don't mean to reject the young man at all, but I say that we can't vary the law—

Dr. Dameron: Mr. President, it seems to me that when a man meets all the requirements, as in a case like this, that it might be the duty of the Society to go along and perform its part, then it is with him to sign. He could not be recognized as a member, in full membership—that is for you—he might go away without signing, as some have done heretofore. It seems to me that the proper course for us to pursue is to go along and elect him.

Dr. Turner: He can't conform to the rules of the association without signing the constitution and by-laws. He is certainly not a bona fide member until he has signed the constitution and by-laws. This year it will be on the records that he was voted for and elected. I would be glad if we could violate the law and do something to help him, but I don't believe in establishing such a precedent.

Dr. Tucker: As I understand it, the Society has adopted the report of the committee and this discussion is out of order.

Dr. Hall: I would like to ask a question. If a man is elected at this meeting, and does not sign the constitution and

by-laws until the next meeting, will he be required to pay any dues for this year?

The President: No sir.

Dr. A. H. Fleming: I do not see anything in the by-laws for not taking action on this application. It does not specify any particular time when he shall sign the by-laws.

The President: This question is already decided and we will proceed to the discussion of Dr. Chambers' paper.

Dr. Gorman: Mr. President we have rather lost track of this paper. Dr. Chambers gave us some very fine points. Restoring the space to lost tooth structure, to my mind, is one of the most important points in all the operations of dentistry. So many of us do not restore the space that is required for normal occlusion and perfect contact points. Another point that Dr. Chambers brought out is in regard to the contact point; that also is a very essential point, and we all ought to think of that every time we perform an operation in approximal cavities. And he also spoke of the interdental spaces being free.

So long as dentists continue putting in amalgam fillings, packing down into the interdental space about one-half of the filling, the result will be that we set up inflammation in the gum. The main cause of this is that they do not use the matrix. To my mind the matrix is one of the most important appliances in dentistry; I could not get along without it, but some do. I don't know how.

I had the pleasure of visiting New York State not long ago where I stood the State examination. I did not have any appliances with me, but was invited up to the office of one of our well-known dentists, where I was given an approximate cavity to fill, and told, "you fill that with amalgam, and then I will give you one to fill with gold". I asked him for a matrix, but was told they did not have any on the place; and I fussed and fumed around and made a kind of matrix, and it took me about twice as long to do the work, and I don't think I obtained a perfect contour. Some may get along without it, but in my office a matrix is indispensible.

Dr. Chambers brought out another important point, and that is, gaining space.

In my opinion the best plan to gain space is with floss silk and absorbent cotton. So many dentists use rubber and get the teeth all sore. It is painful enough anyway, to say nothing of when you get space with rubber and then go to work hammering around it. My method is to take a floss silk and tie a knot in it and pack the cotton down in the interdental space and try to get in as much as I can, and in that way the cotton has got to expand and will gain space.

But if you are going to use a rapid separator, use a mechanical separator. I have been using Ivory's matrix for about four or five years for plastic fillings and I don't see how anyone can get along without it, especially to gain the proper contour.

Dr. Chambers read a very able paper, and I hope it will be discussed thoroughly.

Dr. Bland: I have enjoyed the paper and discussion very much. I think that very often we make a mistake in restoring the contour, in making the original contact, after there has been an atrophy of the gum and there has been a greater space created than there was originally, and we ought to bring this contact point lower down, nearer the gum than it was in the beginning. If you bring the contact point right at the original position, you will find that food will work in and cause separation and sometimes cause disease. So I think it is a very important matter to study every case and see if there has been any atrophy of the gum.

Unquestionably the best way to separate teeth is with cotton, because the rubber produces soreness and is very painful. It takes a great deal more time to separate with cotton than it does to use rubber, but to use rubber is apt to produce soreness of the gum.

As to the use of the matrix, I don't altogether agree with the gentlemen who have preceded me. I very seldom use a matrix. While I very often use cotton as a separator, I very seldom use a matrix.

Dr. Griffith: I move that the rules be suspended until Dr. Betts can make a statement that ought to be made at this juncture.

This motion was carried.

Dr. Betts: Those applicants that came up for license we hope all passed. We have secured as many applicants for membership in our Society as possible, telling them that upon condition that they did not pass, their money would be refunded.

We have brought this matter up as early as possible in order that they might get away as soon as possible and in order that those who passed might sign the constitution and by-laws. When a man signs the constitution and by-laws he is certainly a member, whether he has passed or not. In order to avoid any sort of complications of that kind we must hold up the signing of the constitution and by-laws, until we ascertain from the chairman of the Examining Board whether the applicant has passed the examination of the Examining Board successfully. There is nothing that I see in this copy of the constitution and by-laws that requires a man to sign at any particular time. The chairman of the Examining Board has to pass upon him and may recommend that he be voted upon. The constitution does not say anything as to when he shall sign the constitution and by-laws. He is not a full member until he signs it. Let me read this part.

Dr. Turner: Please first read the standing resolution upon that subject.

The secretary then read the resolution to the Society.

Dr. Turner: I thought that it was decided by the Society, in order to give these gentlemen an opportunity to get in, that these applications from the students were received conditionally. Now you can all understand that, and you will remember that this resolution, passed by this Society, specially applies to these applicants before the board at this session of the Society, and that it was provided that they should put in their applications before the Board of Examiners have reported upon their examinations. They are not members of the Society until after they are granted legal adoption.

Dr. Betts: Dr. Griffith calls my attention to the fact that when they sign the constitution and by-laws, that they become members of the Society, and he suggested that I ascertain whether or not the applicant has passed the Board of Examiners before he is allowed to sign the constitution and by-laws.

Dr. Betts then read from the constitution and by-laws the provisions in regard to the applications of new members.

Dr. Betts: It just lays with him as to when he shall sign the constitution and by-laws. It does not rest with the Executive Committee whether he is ever going to sign the constitution at all. This man's application was made with everything in due form. His fee was there, and his application was signed by two members of the Society. If his qualifications are satisfactory, they should pass upon them.

Dr. Turner: I move that we adopt the report of the Executive Committee.

Dr. Griffith: I want to make this statement. It occurred to me after I made my report, that the records would be marred with the signatures of men who had signed and whose signatures were afterwards erased. It would not be a pretty thing to look at. We ask these men to come up and sign the constitution and by-laws, and then suppose that Dr. ..... and his board say that he did not pass the examination; there would be a large number of signatures to erase.

Dr. A. H. Fleming: Dr. Betts says that a man must have a diploma before he can become a member; this other is a law by resolution on our books. And I think that the fault was because the Executive Committee was not entirely familiar with it, having an almost new Executive Committee. Heretofore they have been allowed to sign the constitution as soon as elected to membership. I ask Dr. Turner if we did not return the money to one applicant?

Dr. Jones: I did not intend to have anything to say about this matter, but I think it is time to say something. I do not speak for the whole board. I say that this resolution that was passed is a very nice thing in one view, but in another, it might put the board in a very disagreeable position, by this resolu-

tion, this measure that was passed, which allows them to become members of the Society before they are eligible for membership, if not a violation of the law, is certainly something that ought not to be done. The point is, shall we take in men who are not eligible? While we desire members and good members from all over the State, I don't think it is sensible for us to take in members who may fail to pass the board, and whose names would probably have to be erased.

Dr. Mathews: My idea of this resolution was, that it gave these young gentlemen a chance, before they went home, to join the Society. My recollection is that when they were voted upon, immediately upon their being voted upon, the whole matter was held in abeyance until we heard from the examining board. If they passed the examining board, they were allowed to sign the constitution and by-laws, and I think that is the proper way.

Dr. Betts: The secretary would like to have instructions in this matter. I don't know what to do with regard to the application of the gentleman whose name has been held up. What are we going to do with his five dollars? What are we going to do with his application?

Dr. Mathews: This report of the Executive Committee has already been adopted.

By the President: Yes, and this discussion is all out of order. I don't think it is hardly proper to interrupt the proceedings with this discussion at this time. I am sorry that we have been drawn into this discussion.

Dr. Betts: I move that we rescind our action in regard to the acceptance of the report of the Executive Committee.

Dr. Fleming: I second this motion.

The President: The motion is out of order. The subject for discussion is Dr. Chambers' paper.

Dr. Ware: I don't know when I ever heard a man take the subject of "Materials and Appliances" and make anything out of it before. But Dr. Chambers has written a very interesting paper on a rather uninteresting subject, and I desire to thank him in behalf of the Society for his paper.

Dr. J. R. Osborne: In the matter of separators, I have always found Perry's separator equal to my requirements. Now with regard to the cotton separator, it requires that our patient has to be with us often, or at least more than one sitting, and that we can not always have. I know a good many who do not use the Perry separator as much as I do; I wonder often how it is that some of them say they have trouble with the Perry separator. I have been very much interested in this paper.

Dr. Chambers, in closing the discussion, said: I feel that my paper has received due consideration, and I thank Drs. Gorman and Bland, and also the other members who have spoken. I only wish to make mention of a point or two. The first is the mechanical separators. Often we find cavities extending so near the alveolus or so much of the crown portion of the tooth broken away we can not use the mechanical separators without their hugging the marginal walls or slipping down and bruising the peridental membrane. Where we find the teeth so badly wasted away that it is necessary to use the mechanical separator to gain space, I believe it better to separate the teeth with the separator and fill the space with gutta-percha or some other suitable material and give the patient another sitting for the completion of the case. I have a little point I will give so you may try if you wish. Sometimes we have to use wedges or packing of some kind in the interdental spaces to make the matrix band form a good adaptation at the gingival margin on the proximal or distal surfaces. I was using the matrix a few days ago for the insertion of an amalgam filling. It was necessary for me to pack gutta-percha between the teeth to force adaptation of the matrix. Failing to find the guttapercha I took a piece of unvulcanized red rubber, cut a piece of suitable size, warmed it over alcohol flame, and packed it in between the teeth just as I would a piece of guttapercha. I find by throwing a blast of hot air on the rubber while working it in the space it works nicely in my hands. I am glad Dr. Bland made mention of our tendency to make the contact points of fillings too near the grinding

surfaces of the molar and bicuspid teeth. I believe this to be the cause of so many of us leaving the contact points to remain with large flat surfaces.

Dr. J. C. Watkins then read a special paper, but before proceeding to read his paper he said: Mr. President, for some time I have been experimenting on what is an entirely new line, and I had made up my mind that the time had not come for preparing a paper on this subject, but that I would relate my experiences to some of the members and get their advice and suggestions. I spoke to one member about it and he asked me to prepare a paper and give the experiences which I related to him.

A NEW TREATMENT

A little over seven months ago a patient brought me a clipping from a paper, the substance of which was that a surgeon in Paris claimed that by the aid of certain rays of light he had been enabled to produce anæsthesia to such an extent that he could perform minor operations without the patient experiencing any pain.

Without a great degree of confidence in the virtue of these rays I began a series of experiments, the results of which have been very satisfactory as they are mostly successful. It is the "blue light" that I wish to bring to your attention—not for the extraction of teeth, as has been mentioned in a few of our journals for the last few months, but for the reduction of swelling and the alleviation of pain.

First, I will describe the appliance that I have constructed. It is simply a sixteen-candle power, blue electric light, the globe arranged in a funnel-shaped tin shield, which at its mouth is about four inches in diameter. This is extended about four inches and has at its end a ground blue glass and a convexed lens.

The ground blue glass is used to disseminate the blue rays so that the patient may not know the simplicity of the apparatus. I attribute no especial virtue to the lens. I have kept a clinical history of a number of cases and will simply indicate a few where I have used the light to advantage.

A little girl came to me with the roots of her left upper first molar abscessing . The roots were nearly covered with overlapping gum, and her face was very much swoollen, so much so that you could scarcely see her left eye, as she could not open it. There was also severe, throbbing pain. The light was applied, and in about twenty minutes the swelling was greatly reduced, she could open the left eye about as

wide as the right, and pain had subsided. I then extracted the roots which did not seem to cause her much discomfort.

In abscessing teeth, where the tooth is "long", and patient can not stand for you to touch the tooth, I have made a simple opening, and then with the "blue light" had the tooth perfectly easy in a few minutes. But in a number of recent cases where I could not have opened the tooth, because it was so very sore, with the "blue light" I have eased the pain, and thus been enabled to open into pulp chamber, without hurting the patient.

After inserting Richmond, Logan, or shell crowns, where the patient is experiencing excruciating pain, the "blue light" will in a few minutes have the pain entirely subdued.

I will mention only one more class of cases, and that is impacted wisdom teeth; and here "the light" has proven my best friend.

The most remarkable case I have had, was that of my brother, who is twenty-eight years of age, whose left inferior wisdom tooth was his "thorn in the flesh". The anterior cusps were out, and others covered. I cauterized the overlapping gum one afternoon with carbolic acid, and similar treatment was given next morning. He continued to get worse until about eleven o'clock, when he had to leave his business and come home. At four o'clock his face, tonsils, and throat were swollen, and he could scarcely open his mouth wide enough to insert one's fingers between his teeth. "The light" was used about twenty minutes, and gave relief. He could open his mouth wide with comfort, the swelling was so near gone that you could not notice it, and he felt very little soreness in his throat and mouth—not enough to speak of. The next morning there was a slight soreness, while on the following day he was entirely well.

Gentlemen, I realize that you all will think that I am very enthusiastic over my "blue light", but all I ask is that you give it a fair trial, and thus in many cases you will bring comfort to your patient and satisfaction to yourselves.

DISCUSSION

Dr. Wheeler: I should like to hear from Dr. Alexander on this subject.

Dr. C. L. Alexander: Mr. President: I did not expect to have anything like this sprung on me so suddenly. I have been experimenting with the blue light some time and I must say that I have not had much success with it as an anæsthetic. I talked to Dr. Watkins and found that he knew a great deal more about it than I did. I had a patient come to my office

with a form of neuralgia and he said that he had suffered a great deal that night. I told him to take a seat and I brought a blue electric light and put it near his face, and in ten minutes he was perfectly comfortable, and the next day he said he had come to get some more blue light, that the pain had commenced again, and I applied it again and he got relief as he had before. He left town and I have not heard from him directly since, but I am informed that it did not give him any further trouble. I don't think it had any influence as an anæsthetic, but I think that it has a good influence upon abnormal tissue. We know the peculiar effect of different lights on the human body and on plant life. We know that people are often sent to the mountains to get the benefit of we know not exactly what, but think it is often the benefit of the sun's rays. We come down into a lower climate and as these rays pass through the atmosphere, the rays are absorbed and we do not get the benefit of the rays. We realize that man has gone to work and produced what is called the "electric bath" and that is nothing but an arrangement by which the blue and ultra violet lights are distributed to the body, and it seems that these lights have some remedial effect. I read where a certain Swiss physician had treated a great number of people for carbuncle with the "Dermo lights". This light we can get abroad and if placed in the hands of dentists, I think we would find it very useful in many forms of inflammation. When I first experimented, I thought that possibly heat rays would have the same effect, and that the blue rays had nothing to do with it. But I now think that if it was not due to certain rays, transmission would take place at once. And we find that there is a great change in the red blood corpuscles, and in that way a great change does take place as the result of this light's effect upon the body.

Dr. R. H. Jones: I wish to say, in addition to what Dr. Watkins has said, that I have a friend who had a..... and he was telling me something on the line of what Dr. Watkins has said about the treatment with blue lights in the case of rheumatism. He suggested to me the use of blue lights to

relieve pain and I am very glad that Dr. Watkins has made these suggestions. Acting upon those suggestions of my friend, I went and got some blue lights for my windows, but I never went any farther. I don't know that they did any good.

Dr. S. W. Foster: I promised my physician that when I came to the meeting of the North Carolina Dental Society this time, that I would not discuss the papers, as I have a very severe sore throat, but I am forced to make some remarks, because when I come to these meetings it seems that I come to a place where I always find something new and something good. We have read a little about blue lights, and as North Carolina has a national reputation for invention—so far as the Alexander gold fillings go, he is known all over the country—I anticipate that in a few years you will hear people talking about Watkins' "blue light". We all know there is something in this. We know what a restful influence lying in a blue room has on the nervous system, and when he brings out the idea of relieving inflammation, we must ask what influence this light has in relieving inflammation. We know there is a secondary stage of the inflammation when the blood has almost ceased, when the nerves are pulsating, now what causes this reduction of the inflammation by the blue lights? There can be no question about the rational therapeutics of the blue light according to the demonstration by the doctor this morning.

Dr. Turner: I am very much interested in this paper. Of course, like most of the gentlemen, I have seen this article about the blue lights, though I have made no personal experiments except one, and that was a very unusual one.

I recall when I was in the army (I must have been a very young man), I was in the army on the Maryland campaign and when the troops got near Washington there was a great deal of straggling among the troops, and the weather was very hot and very dry, and those of us who kept up with the army had to march through the dust and the heat. While riding with the soldiers, I saw a gentleman with a pair of blue shades over his eyes, and in some conversation with him he said, "did you ever try this?" and I said "no", and he said "try it now",

and I put on those glasses. Now, understand, we had been marching and my eyes were more or less congested and the general depression affected my mind at the same time, and do you know that the effect was most magical, the scene seemed transformed into rainbows, and I wore them half an hour and felt like a different man. And of course this is something that happened to recall that occasion, because I am satisfied that the effect produced was upon the same principle as illustrated by Dr. Watkins' theory. How little we know about this.

Dr. Alexander: I would just like to say, that from what I have read it seems that the blue light exposure has a germicidal influence, and it has been demonstrated that the bacilli of typhus, gonococci, anthrax, and other micro-organisms are destroyed after being exposed for a few minutes and in some cases seconds to the influence of the rays of the blue light. Experiments made have proven that these bacteria are destroyed even when living tissue intervened between the source of light and the germ culture, a rabbit's ear being used as a medium of obstruction. From personal experience I am satisfied that the blue light does not have an anæsthetic effect, as we understand anæsthesia, but that its influence is due to its bactericidal and therapeutical effect upon morbid tissue. The blue light has been used successfully in the treatment of carbuncles, and tuberculosis of the bones and glands.

Dr. Mathews: I would like to ask the gentleman if he confined himself to any particular shade of blue.

Dr. Alexander: I am not able to answer that question. I have a globe that was made blue in the fusing. Dr. Watkins has a different kind of globe, one that was stained blue. In order to destroy the heat rays I have seen it suggested to insert between the lense a receptacle filled with methylene fluid. This would absorb the heat and not interfere with the effectiveness of the light. For my part I am going to learn more about the blue light, and we should all feel grateful to Dr. Watkins for having introduced the subject.

Dr. Watkins: I feel sure from what I have read in journals, other than dental journals, that this is a big field. We

know from certain results in botany that the violet rays of the sun are antiseptic, and that not only in animal life, but if two plants are shaded, one shaded with the blue light, and the other not, the one shaded with the blue light will grow more rapidly than the one shaded with the ordinary sunlight.

Dr. S. W. Foster: I want to ask Dr. Alexander to what he attributes the blue light's germicidal influence? If you destroy the bacteria, that is producing the effect, how is it that you remove the oscillation of the inflammatory process. It is impossible to remove the inflammatory oscillation in less than twenty-four hours. I made the point that it was largely due to the relaxation of the tissues, allowing the blood to carry away the white corpuscels.

Dr. Alexander: It is certainly very soothing in its effect and certainly where you apply it, it will relieve the irritation and at the same time stimulate the nervous system in that way. I don't know enough about the subject to give an opinion as to how it does it.

Dr. Watkins: I don't know that I have anything more to add to what has already been said, except that I use the "Finsen Light". This light is made by rays of a strong arc light passing through two lenses, and through distilled water. That is done to remove the heat.

Dr. Alexander: That is done by running it through an "eradicator?"

Dr. Watkins: Yes, the rays of this light are thrown through three eradicators, through which two streams of water are falling, and this has nothing to do except to absorb the heat rays.

By the President: I am sure we thank Dr. Watkins for his paper.

Dr. C. A. Bland then read a paper on "Chemistry and Metallurgy".

CHEMISTRY AND METALLURGY

There is probably no study in the curriculum of the dental college which bores the student more than chemistry, and after he becomes a

practitioner no subject that passes from his memory sooner. Of course, in our dental colleges we only get a smattering of elementary chemistry, and can only hope to have an imperfect knowledge of this wonderful science; however, we too frequently look on it as a subject having absolutely no practical bearing on dentistry; and to believe that its symbols have about the same weight in the everyday affairs of life as the hierglyphics on the Egyptian obelisk. Nevertheless, it is very important for us to know something of the fundamental principles of chemistry. Chemical change is continually taking place. The plants are taking certain elements from the earth and air and in their wonderful natural laboratories connecting these elements into their own structure, we see all vegetable and all animal life die, decay and return to the earth replacing the particles of matter they had used for awhile. Hamlet gives this thought expression when he says:

> "Imperious Cæsar, dead and turned to clay,
> Might stop a hole to keep the wind away;
> O that, that earth, which kept the world in awe,
> Should patch a wall to expel the winter's flaw".

The chemical conditions of the oral secretions is one of great importance to the dentist. Chemical environment being one of the chief causes of decay of the teeth, I have heard men state if it were possible to keep the teeth perfectly clean there would be no caries. This is only partially true, for although it is very necessary to keep the teeth clean, the tooth brush alone will not give immunity, for we frequently find the ravages of decay in the mouths of people who are most careful about brushing the teeth, and often savages, who know nothing of the prophylactic care of the mouth, will have beautiful teeth. This is due to the fact that the condition of the mouth in civilized man is, chemically speaking, abnormal, and caries can not be checked until this condition is changed. Some men say that decay is caused by bacteria; so it is, but even then it is chemical, for the bacteria elaborates an acid which causes the destruction of the teeth. One man, in writing on this subject, says: "When I read of the millions of organic germs, vegetable and animal, which had domiciliated themselves in the inner spaces and cavities of the teeth, I wondered that the whole human family did not at once succumb to the fate of King Herod of old, of whom it is recorded, "He was eaten of worms, and gave up the ghost". So we see the bacteriologist, as well as the chemist, admits that caries is due to acid. Now we sometimes find perfect teeth in unfavorable chemical surroundings; this is because they possess unusual resistance to decay on account of strength and density. Just as different kinds of wooden posts put into the same

ground, one will last longer than another, owing to difference in structure. It is often important to know the reaction of the oral secretions to aid in the selection of a filling material. In pyorrhea alveolaris, one should be able to make a chemical analysis of the calculi in order to trace the cause of the disease; pyorrhea is a symptom of disease. It will improve by local treatment, just as an abscess will get better when lanced, but will likely recur, unless we remove the cause. We should study the chemical composition of the various drugs we use. If, by accident, we should get arsenic on the gum, we should know how to counteract its bad effect; a better knowledge of the coloring matter used in rubber is desirable, so we could see if they really have the bad effect on the tissues they are reputed to have. When we bleach a discolored tooth, we ought to have a good idea of the chemical change which takes place. An understanding of chemistry would prevent our using nickel posts or screws in the anterior teeth to retain fillings, thereby avoiding the unsightly green stains caused by salts of nickel.

Metallurgy means the process of extracting metals from their ores and the art of working them. The study of the various alloys used in making solders and amalgams is an interesting one. The alloys are not only mechanical mixtures of the metals possessing certain distinct qualities, but in reality are true chemical compounds. I shall not go into the workings of the metals used in dentistry, for it is a subject all are familiar with. I simply refer to it with the hope of arousing a little discussion on the subject. The recent wonderful discoveries in chemistry have almost led one to think that Honore de Balzac, in his story, "The Quest of the Absolute," was more prophet than dreamer when he makes one of his characters say, "My inmost soul is wrapped in contemplation of one fixed idea engrossed by one all-absorbing thought—the Quest of the Absolute; to detect the force that is seen at work when a few seeds, which can not be told from one another, set under the same conditions, will spring up and blossom and some flowers be white and some will be yellow. You can see its mysterious operation in insects by feeding silkworms, apparently alike in structure, on the same leaves, and some will spin a white, others a yellow cocoon; you can see it in man himself, when his own children bear no resemblance to their father or mother. Hence, may we not logically infer that there is one cause underlying these effects, beneath all the phenomena of nature? Is it not in conformity with all our thoughts of God to imagine that He has brought everything to pass by the simplest means?

DISCUSSION

Dr. Tucker's remarks in opening the discussion:

DR. TUCKER'S REMARKS IN OPENING DISCUSSION ON DR. BLAND'S PAPER ON CHEMISTRY AND METALLURGY

Mr. President:

I want to thank the essayist for this most excellent paper on Chemistry and Metallurgy. Usually we consider chemistry and metallurgy dry subjects, and it is hard therefore to write a paper on these subjects that creates enthusiasm and demands discussion. I think this a most excellent and thoughtful presentation of these important fundamental subjects, and I am sure that the many good points so well and carefully brought out must create a discussion that will be of great benefit to this Society. I am not prepared to discuss this excellent paper and what I shall say will be to emphasize the views of the essayist with which I agree.

The essayist makes the statement that we only receive a smattering of elementary chemistry in our dental colleges (I believe that he is correct in this statement), and follows this by saying that we too frequently look on chemistry as a subject having absolutely no practical bearing on dentistry. I believe this to be true also, but why? I wish the essayist had given the reason in this way; that because the dental colleges are not prepared and equipped to teach this great fundamental science (the term course of graduation being too short), so that our knowledge of it, when we leave college is so meagre, that from then on we look on it as having absolutely no practical bearing on dentistry. I believe this to be one reason for dentistry being looked upon so long as purely mechanical, "making it a trade." Everything paling before that of the actual practical details, that of the hand, hammer, chisel, and drill, therefore we have practitioners whose minds are not well disciplined by study, and whose powers of observation have not been trained.

A trade may often be learned with little cultivation of the perceptive faculties of reasoning. A profession can never be mastered without the highest exercise of both. A man who works by a rule without knowing or concerning himself as to the reason of the rule, can not attain the highest success; therefore the admonition of the essayist, that we learn more of the fundamental principles of chemistry, is timely and well put, because the study of chemistry leads to observe carefully, and to draw conclusions from observation, and understand better what results mean, and why we perform certain operations; of course we do not mean that the dentist must become a trained chemist but that the fundamental principles should be clearly understood that he may make as extended application of them as

possible, for there are many subjects connected with dentistry which need to be investigated by one who has a knowledge of theoretical points as well as practical needs. Daily questions are rising which need to be answered by research and chemical experiment, as the essayist says, the chemical conditions of the oral secretions in regard to cases, chemical analysis in pyorrhea may enable one to trace the cause of the disease, and suggest proper treatment. It is important that we understand the chemical composition of the various drugs we use. The perfect filling material is yet to be discovered, and the dentist must make the discovery. Then as the essayist earnestly urges in his most excellent paper, is it not important that dentistry lay more stress on this great branch of physical science, that we understand more thoroughly the atomic composition of matter and the alterations which result from a change in number, kind and conditions of matter, that we may practice our profession more intelligently.

I want to thank the essayist for this valuable paper on these subjects, Chemistry and Metallurgy, for he with care, in a thoughtful and intelligent manner put the subject before us with many valuable points for discussion, and I hope that this valuable paper will be discussed by many gentlemen in this hall.

Dr. Turner: I was greatly charmed with that jewel of a paper which was read by Dr. Bland. It was evidently a paper the result of some thought, and it is only a man who is determined to make a perfect thing that can accomplish such results. As to the cause of decay, I don't see where there is any difference of opinion about it, and I think that his conclusion is most apt. He says that in planting a post in the ground, exposed to the action of the earth and air and such chemicals as are there, is a very fine one, except that these chemicals which act on the teeth are *on* the surface, instead of *under* the surface. There is an old saying that if a man can keep his teeth clean there will be no decay. I differ with the paper in that, but the problem of keeping the teeth clean is one of great difficulty, keeping them perfectly clean. But it is a fact that decay is purely a chemical process; still there are always conditions, these conditions brought about probably by the germs in the mouth. It is believed to be brought about by the germs in the mouth that secrete lactic acid and other acids which make inroads on the teeth. There is no doubt in my mind about the cause of decay, that it is chemical. In speaking upon this sub-

ject. I think too much can not be said, that too close an inspection can not be made for determining the character of the fluid in the mouth.

As to the cause of "pyorrhea". He says that it is a constitutional disease. I don't quite agree with him that it is purely constitutional, and my reason is that whereas there are a great many cases that are very difficult to cure by local treatment, there are many cases that are treated and pronounced cured that are not, but the reason it is not cured is because the same causes produce the same effects, the disease having caused recession of the gums. When you get below the surface of the teeth it is very difficult to keep the tartar off, if it is not watched very closely by the dentist every month.

Now I don't pretend to say that the constitutional condition may not affect an aggravated case of "pyorrhea", as I have had to prescribe a diet to some of my patients, and they would say, "I want to get clear of this trouble". Now in cases of that kind you can get the gums in fair condition.

Dr. Griffith: There is one thing that tends to improvement and help in the progress of dentistry, and that is a paper like this. I notice one thing about our meetings, the tendency of our minds towards chemistry, something a little beyond elementary chemistry, but they are beyond me. The little practical questions of chemistry I understand, but these papers on chemistry, I notice improvement in them from year to year. I heard some papers on this subject twenty-five years ago, but when I visited those meetings of the Society, we passed that question, but I believe that ten years from now those who listen to such papers will be able to criticize them. I only regret that there are so many things in chemistry and other things that are improving so rapidly that I am not competent to discuss them.

Dr. E. O. Chambers: I just wish to express to Dr. Bland my appreciation of the benefit I have received from his paper. It is one we should consider very seriously. It is one which sets forth a problem that is presented to us very often and which we should understand thoroughly in order to accom-

plish the results which we desire to accomplish, and I feel personally that we are due Dr. Bland a vote of thanks.

Dr. Bland: I wish to express my thanks for the kind appreciation which you have expressed for my paper. I wish to say that I do not know very much about chemistry myself, but I want to say that chemistry has given us a great deal more than we realize. This violet light is but the outgrowth of chemistry. Now they are using the electric current in producing these blue lights, but still electricity, in its commercial use, is the product of chemistry. We should look into the whys and wherefores of things and our advance will certainly continue. There is no doubt that dentistry is receiving recognition today that it never received before. I think the Society owes a debt of gratitude to those men who organized the Society, and I am glad that I have had two of them to discuss this paper today. I wish to thank the Society for the kind reception which it has given my paper.

Dr. C. H. Banks then read a paper on "Crown and Bridge Work".

A FEW PRACTICAL CONSIDERATIONS ON CROWN AND BRIDGE WORK

Gentlemen of the North Carolina Dental Society, Ladies, and Gentlemen:

It is with great pleasure that I have the privilege of reading a paper before this Society. I hesitated, when asked to prepare a paper on such an important subject as this. Not because I was not willing to undertake any task requested of me by this Society, but because I felt that I was incompetent to do the subject justice.

There is no branch of dentisty so much abused as crown and bridge work. We often see crowns put in the mouth where fillings were indicated, thereby putting the patient to unnecessary expense. We also see crowns inserted where the root is too weak to support the artificial crown; unfortunately there are men in the profession who think more of the compensation they receive, rather than the duty to their patient and incidentally themselves. When a patient comes to us and we perform an operation, we should ask ourselves this question. Would I be willing for this piece of work to go in my mouth? If each of us would put this question to self, we would place dentistry upon a higher plane than it is today. The dentist who performs his

operations from this standpoint and does it conscientiously, in my opinion will always succeed. Many failures in crown and bridge work are due to lack of judgment, rather than lack of skill.

We should ever be enthusiastic but should be guided by judgment and experience. Men are often criticised for being conservative, but if the conservatives did not curb the over-enthusiastic, dentistry would not hold its high place in art and science as it does today.

The therapeutic treatment of teeth deserves a great deal of consideration. Only a few years ago prominent men in the profession advocated the capping of pulps in teeth where crowns were to be inserted. Where the pulp is very nearly exposed it is always best to remove it. When the roots are aseptically treated, then hermetically sealed, you will seldom have trouble with your crowns and bridges, otherwise you will be sure to have trouble, so far as the ability of the abutments to retain the appliance is concerned. Some men advocate removal of all nerves where crowns or bridges are to be inserted. I do not agree with this method but think that we should be governed to a great extent by the case in hand. Many failures in crown and bridge work are due to the failure of putting the root in an aseptic condition and hermetically sealing it before we attempt to set the crown or bridge.

For retentive power, crowns are divided into two classes. The post and the band. All other crowns are modifications of the two.

For the four incissors, we have many crowns to select from. In my judgment the best porcelain crowns on the market today is the Justi and Logan. There is, however, an objection to each; the shades and the contour of the Justi are a little off. The objection to the Logan is, the pin is baked in the crown. The crown is easily adapted if baked without the pin; you can handle, cut, and shape it much better. Much can be accomplished by the use of these crowns when properly fitted to the roots. There are but two ways to fit these crowns, one is to grind to fit, the other is to use a material between the roots and the crown that will not be dissolved. To fit a Logan or Justi crown, burnish a thin piece of platinum over the root, then run the pin through the platinum (the crown should be ground before this takes place), place some wax between the plate of platinum and shove the crown home. Carefully remove the crown and pin, remove the wax, mix some porcelain body, fill in between and bake. This is very easily done. The usual method of adapting porcelain crowns is to grind them to fit; this is a very good way if properly done. It requires time and patience to get nice results but by the use of articulating paper they can be made to fit perfectly. When the shades and size are carefully selected beautiful results can be obtained, but when the patient comes to you with a Logan or Justi with a V shape space on the lingual surface with an off shade and an ill shape you are almost disgusted with their use.

When the root is solid, one of the best Crowns is the pin and plate. This can be made to fit the root perfectly. The only objection is the facing, but if the cutting edge be properly bevelled, the facing will not break.

The new Richmond is the very best Crown made, according to my view. The roots for these Crowns are cut in a V shape, looking from the mesial or distal surface with the apex towards the occluding surface. After the root is carefully prepared with stones and files, a very thin plate of gold, about 3-1000 should be burnished to the root. Punch a hole in the gold and run a pin through and solder. Replace the pin and plate and burnish thoroughly to the root. Take an impression and grind the facing to fit, invest and solder. When this Crown is properly made it is one of the best we have, as there is no band to irritate the gum as in the old Richmond. The advantage of this device—the readiness with which slopes of the root can be prepared with files—the facility with which these slopes may be given any angle, out or in, as it may be desired or rotated upon its axis. When properly adjusted it will be exactly duplicated, when set. An advantage the new Richmond possesses over other forms of porcelain, or pin and plate Crowns, is that it will not turn upon its axis, however, its use is contraindicated upon roots where the decay has gone much beyond the gum margin on the palatine surface. Each successive step must be taken with prudence, skill, and judgment, carefully considering each detail as the Crown is being constructed.

For the first bicuspid, and sometimes the second, it is always best to use some form of porcelain Crown—provided the patient shows the teeth very much. I always prefer the use of the porcelain Crown when I am operating for ladies. The very best porcelain Crown on the market today, conceded by most operators, for the bicuspids, is the English tube. The root should be ground to the desired shape, then ream out both roots, burnish a plate of gold to the root, run the pins through, remove the plate and solder the pins to the gold plate. Replace the plate and pins and burnish, then take the impression and bite, select the size and shape, then grind the Crown to the desired length. Run a pin through the Crown and burnish a plate of gold to the Crown, solder the pin to the plate, then wax up on the model and remove the Crown from the last pin and plate, invest and solder the plates that you have burnished to the roots and the one that you have burnished to the Crown together. When properly constructed the Crowns are strong and will not break. Another advantage is, you have a perfect adaptation to the root and Crown alike.

It is generally conceded by the profession that the gold shell Crown is the ideal protection for the molars and enables us to save many teeth that would otherwise have to be extracted. The Crown

should not be brought further forward than the second bicuspid. Not many of us consume enough time in preparing the tooth for the reception of the Crown. It should be dome shape, a little larger at the gum margin than it is at any other point. Swaged Crowns are not as good and will not last as long as the ones made by hand, besides it is impossible to get a perfect adaptation at the gum margin. In taking the dimension of the Crown it is very important that it should be exact. After we have the band cut and soldered, it should be contoured and adjusted to the tooth. After it is adjusted a little modeling compound is placed in the band, having the patient to close the mouth normally and let it remain closed until the compound becomes hard, then remove the band, bringing the compound with it, then carve the cusp and you have a perfect articulation with the occlusal surface of opposing teeth, and as a result, when stress of mastication is brought to bear on the Crown, the pressure is distributed to all parts of the Crown instead of one or two points.

In making Crowns we should strive to imitate the natural teeth as much as possible. One of the best little devices for swaging these carved cusps, that I have seen, is Mellott's outfit for the die, but instead of using lead for the counter die, use modeling compound. The gold used for the cusp should be about half the thickness of the band and should be 24 K. fine. It is easier to swage and burnish after the cusp is swaged. I take it and place it over the carved cusp in the band and burnish it well to the edges, warm just a little and draw the compound out, never upsetting the cusp, then solder.

The success of Crowns depend upon the condition of the tooth, when crowned, the adaptation of the Crown at the gum margin, its occlusion and its usefulness. Many Crowns are pushed too far under the gum and cause the gum to become irritated. There is also another serious objection to pushing the Crown beyond the free margin of the gum; the tooth is always smaller just below the free margin, therefore it is impossible to get the bands to fit. It will leave a little shelf for the food to collect.

ASSEMBLAGE OF CROWNS OR BRIDGE-WORK.

When Bridge-work is constructed by a skillful and conscientious operator it is a boon to humanity. The most important thing to consider, when we are to construct a bridge, is its foundation. Bridges are often a complete failure because the operator exercises faulty judgment in selecting the teeth to be used for the abutment. Many bridges are inserted where partial plates are indicated. In selecting crowns for bridge-work we should be governed by the position of the bridge, we should show as little gold as possible, as it is unsightly to see an excess of gold in the front of the mouth. In

selecting crowns, the gold crown is the best for the molars, for abutments anterior to the second bicuspid, a porcelain or hood crown can be used.

In bridge-work aesthetic considerations are frequently ignored. Just as much importance should be attached to this kind of work as any other forms of prosthetic dentistry. Some times the mechanism has to be done at the expense of the aesthetics. We know, however, a bridge, when complete, should present as near as possible the color, size, and position of the natural organs and should be so articulated that it will restore the lost masticating surface, to an extent commensurate with the resistance of the abutment. It is unwise to restore a complete cusp length and full occluding surface.

The occluding surface is given a smaller area and the cusp made shorter than the natural teeth, so that the vertical and lateral forces are lessened to the required degree. When the jaws are closed normal the occlusion should be perfect, or else the usefulness is lessened. I know of but one way to get a perfect articulation, and that is to get a copy of the occluding tooth. The most satisfactory way that I have seen is by the use of modeling compound and the carved cusp. By the use of this method it is possible for us to get a perfect articulation. You can easily lessen the area and shorten the cusp in constructing bridges.

It is ever important that we should bear in mind the cleansing properties of a bridge. No part of a bridge should be so constructed that it is not accessable to the tooth brush. In soldering, many of us allow the solder to flow too far down on the abutment next to the gingival margin, thereby making it uncleanly. A bridge, when complete, should be smooth without pits and depressions and should be as near self cleansing as possible.

DISCUSSION

Dr. Hunt: Mr. President, I am sort of a crank on the subject of crowns. I have made the statement on various occasions that I can not see the necessity of placing gold crowns on any teeth anterior to the first molar. That may seem a broad statement, but my opinion, nevertheless. The hood abutment, with some modifications perhaps, can be used upon anterior teeth as an attachment for bridges. When it becomes necessary to crown a bicuspid, that tooth has reached a stage where it is impossible for it to hold another filling. When you can fill a tooth you should fill it, if it don't last more than a

year or two. You have gained that much. The ultimate end of a crowned tooth is extraction. If you can fill a tooth, fill it, but put off crowning as long as a filling will do the work. If the tooth has reached the stage in which it can not be filled you might just as well grind away the remaining tooth structure and place a *porcelain* crown upon the root. By *porcelain* crown I refer to the crown with cap and band to protect the root. We should imitate nature, and in doing that we certainly do not place gold crowns upon anterior teeth. If a gold crown is placed upon a molar, it is usually hidden from view by a natural tooth or a porcelain crown in front of it.

Another thing I have to say is that the Logan crown is not the proper crown to put on except perhaps in case of an emergency, and then probably it should be put in with gutta-percha so that it could be removed. It is impossible to joint a Logan crown so that it will accurately fit the root. In the majority of cases in which you are called upon to reset a crown, that crown is a Logan. When the root is finally past the crowning stage it is caused by a decayed or split root. In my opinion this condition is best prevented by the use of the procelain crown with cap and band.

Dr. Turner: I want to say that I must commend the young man upon his effort to contribute something to the Society, but I think his suggestion about the preservation of the root is open to some criticism. If it is possible when it is presented to you, to secure space, leave the root about two lines above the gum on the linquiral surface, and then make a hood with a band extending about three-fourths around the root from the unequal surface, tapering towards the labial surface. Where the root should be ground a little below the margin of the gum and then proceed as he has described. I find an ordinary plate tooth will make a very good crown if it is properly adjusted. The object of this hood on the posterior surface is to prevent the splitting of the root. I agree with Dr. Hunt that it is rarely the case that you can make a Logan crown adapted to your use. If it is comfortable, or as soon as it becomes comfortable, they will bite on it and may split the

tooth. I don't say always, but that is the danger to be apprehended.

Dr. A. H. Fleming: I had the pleasure of being in Dr. Calvert's office, and he had produced a crown which in a measure will, I think, displace a great many. I agree with Dr. Hunt that a crown is but the shadow of a tooth, and if it can be filled for even six months it is best that it should be done, thereby putting off extraction. Then this inlay work will evidently do away with almost all crowns. I think the porcelain inlay will displace a great many of the crowns, and when this is practicable, I think it will lengthen the life of the tooth.

Dr. Banks: I think that Dr. Dameron misunderstood me that in adjusting all the parts of the crown, the teeth should be joined just beneath the gum margin, so that the end will not show.

Dr. Hunt: If you want to win the eternal gratitude of your patients, simply inject a little cocaine in the gum before you begin to work on the gum.

Dr. L. L. Dameron then read the paper on the subject of "Prophylaxis".

Mr. President and Gentlemen:—

The subject of Prophylaxis is claiming a larger share of the attention of physicians and dentists than ever before, and its importance is being more fully recognized with each passing year. To prevent disorders of the mouth and decay of the teeth, and the diseases resulting from those conditions is the highest service we can render to our patients.

It is a well established fact that the environments of the individual, even from the earliest period of his existence, has an important bearing on his physical condition, and determines in a large measure what grade or quality of teeth he is to have, and whether or not their preservation through life is going to be possible. This being true, it goes without saying that the time to begin to work for the best possible physical development is with the beginning of life itself.

I shall not attempt a lengthy discussion of this broad subject, but wish to call attention briefly to a few facts gathered here and there, that may be helpful to some of us, and serve to keep alive our interest in this department of our work.

The predisposing causes of many of the tooth-troubles with which

we have to contend through life, are traceable to bad hygienic conditions during the tooth-forming period. The use of unnatural food for infants, i. e., those artificially prepared, appears to be a fruitful cause of faulty development of the teeth, as well as of the bones in general.

The following statements by Dr. Louis Fischer appeared in the March, 1905, Bulletin of the North Carolina Board of Health.

"Dr. Michael examined the mouths of 11,762 children. He has endeavored to discover whether there exists any relationship between frequency of dental caries, and, first, breast feeding; second, artificial feeding, (cow's milk); and third, the presence of the child during its early age, in regions poor or rich, in calcarious compounds.

Out of the 11,762 children, 7,763, or about 66 per cent., had been breast fed. The infants were weaned, on an average, at six and one-half months. Caries was found in the proportion of 11.4 per cent. This proportion is eight per cent. less than that found in the remaining children fed by different means.

In a group of 620 children, raised on different varieties of proprietary foods, caries was found in 37 per cent., and rachitis in 16 per cent.

From the foregoing statistics it can be seen that children raised on mother's milk have better and sounder teeth than those raised on cow's milk and artificial foods."

Exercise in chewing such foods as require vigorous chewing increases the circulation in the tissues of the mouth and promotes development of the jaws, and keeps the oral secretions healthy and the teeth clean and polished.

Bacteriologists tell us that there are fewer bacteria found in the mouth after a meal that requires vigorous chewing.

Irregularity of the teeth is seldom found in the deciduous set, and can be prevented in the permanent set in a large percentage of cases by proper care of the deciduous teeth, and by their removal at the right time.

The hope of progress in dental prophylaxis lies in the more general diffusion of knowledge on the subject. Parents should be taught that an uncleanly mouth is a constant menace to health, and that the germs of many of the most fatal diseases, as tuberculosis, pneumonia, and diptheria have their period of incubation in the mouth.

The well-being of our race demands that a general knowledge of oral hygiene and prophylaxis be taught in the public schools, and children should be trained to cleanse their teeth as regularly and systematically as they wash their faces and brush their hair.

If we wish the parents of the next generation to have a better knowledge of this subject, and to more fully appreciate its import-

ance, we must teach it to the children of this generation, for, "as the twig is bent, so is the tree inclined."

In the treatment and cure of disease, and in the mitigation of human suffering, medical science has accomplished much, but its greatest achievements have been in discovering means of prevention by the use of which many of the most fatal diseases that threatened the destruction of the race have been practically stamped out.

A suitable tooth brush, properly applied, with plenty of water, will accomplish wonders in preventing decay of the teeth and foul breath, and in preserving a healthy state of the mouth.

A very large percentage of the tooth brushes found on the market are poorly adapted to the uses for which they were designed.

Tooth brushes should be small, with small rounded handles, and the tufts of bristle set well apart and trimmed to a point so they will penetrate the interdental spaces and dislodge all accumulations. The posterior tufts of bristles should be short so that they can be passed into the angles of the jaws and made to cleanse the outer surfaces of the third molars.

DISCUSSION

Dr. White: I am sorry that the time is so short that we can not discuss this paper properly. I think that the paper has brought out some good points. I think that if the tooth brush or the dental floss, one or the other, is to be left off, that the tooth brush should be left off instead of the silk floss.

Dr. P. E. Horton: I think the prophylactic brush is the best brush made. I am of the opinion that the bristles of both brushes are too close together, and the brush will not serve to go in between the spaces and thereby clean the teeth.

Dr. Gorman: I did not have the pleasure of hearing the paper this morning, but judging from the length of the discussion, it was an interesting paper. I want to say one thing, and also answer a question of Dr. Horton, and say that if he never tried Dr. Arrington's brush he will find that those bristles are far enough apart and that the brush is small enough. And along the line of using dentifrice, I don't believe in letting dentifrice do all the work. I believe in the man doing part of the work.

Dr. Humphrey: Dr. Gorman says he uses an Arrington

brush and brushes down on the gum. I would like to know how he prevents a recession of the gum?

Dr. Gorman: I was speaking of my own mouth, and I don't hesitate to show my patients how I scrub my teeth and scrub down pretty hard on the gum.

Dr. Dameron: In regard to dentifrices and mouth washes in general, I have very little faith in them. I think that the object to be attained is that of cleaning and brushing the teeth, and the best authorities on the subject that I have been able to get hold of teach that the strongest antiseptics that can be used in the mouth are not capable of disinfecting the mouth.

Dr. Humphrey: In regard to the use of a brush, I have heard it said that it was as important to brush the tongue as it was to brush the teeth. It is a pretty hard job, I guess.

Dr. Griffith: I wish to say that I do not think that any paper ought to be passed without something being said about it. If you want good papers you ought to discuss the papers. If we publish these proceedings it is important that the papers should be discussed, and if not discussed it will tend to discourage anybody who has gone to the trouble to compare.

Dr. J. M. Flemming then read his address on "Prosthetic Work".

FAILURES IN PROSTHETIC WORK

The custom of speaking and writing of the successes of our daily work and our tendency not to speak of our failures, have caused the one to be much overdone and the other to be left undone. Not that a person has not a right to feel proud of his success along any given line, but we are too prone to forget that others might profit by our failures as much, if not more, than by our successes, and save themselves many hours of care and worry, if we would all lay aside our pride for a time and give our failures the same prominence that we give to our successes.

A failure that is successfully overcome is worth a great deal more in experience than any number of successes in which we have met no reverses whatever, and no one will dispute the fact that failure. followed by a success that overcomes that failure, gives one a much clearer insight into the little points which make for ultimate success. Personal failure certainly gives one the right to speak. Wherein a

brother practitioner has failed, professional courtesy stops all criticism, but wherein I myself have failed, therein may I criticise.

Prosthetic work is no more frought with failure than any other branch of Denistry, but in some way the mistakes seem to count for more.

In this paper we would speak preferably of the mistakes that a dentist has do with in his own laboratory—mistakes that the public know nothing of.

Failure begins at the very first, coming from different sources. In my own work they have come from many sources, nor do I feel that mine has been any exception to the common rule.

Failures come first in taking impression. It is hardly necessary to speak of the manner of taking them, nor of the material to be used—that part is often gone over—but we are too often satisfied with a fair impression, one that we hope will do, when it would be very little more trouble to get the best impression. The person who first said that "That the good is a great enemy of the best" probably knew nothing of taking impressions of the mouth, but the adage is certainly applicable.

And knowing that the whole success of the denture depends on the impression, how often we start out feeling that we have a poor impression, yet hoping almost against hope that the denture will fit. It shows that we are negligent of doing our best in vulcanite work—when we will spend twice as much time on an impression for gold work.

The very best impression should be had under all circumstances and he who is satisfied with a good impression, knowing that he could get a better one, is inviting failure from the very start, and the invitation is too often accepted. Being satisfied that failure will not be due to a poor impression, we can go a step further.

If the patient has a hard unyielding palate, the impression should be thoroughly scraped there to relieve the pressure from the finished plate. It was never intended for the force of mastication to fall upon the hard palate, but on the alveolar ridge itself. A vacuum cavity will not answer, it only relieves the pressure in one spot, while the slight scraping of the impression over the whole palatal portion will relieve it entirely and leave the plate resting on the ridge. One that does not so rest is a source of eternal rocking and of dismal failure.

We sometimes meet failure in mouths that are very flat, mouths in which the alveolar ridge is much absorbed. In mouths of this description you will almost invariably find a hard unyielding palate, and too frequently a rocking plate follows, but if this method of

scraping the impression is followed, and in addition to this a groove be cut on the model all around the process and across the posterior palatal portion of the model—in other words—following the outline of the plate, you will find that these mouths instead of being difficult to fit, will become the easiest. The method is not given as anything new, nor is any originality claimed for it, but as a remedy for such cases it deserves a careful trial at the hands of all who may have had failures in this class of work. You will be surprised at the measure of success that will follow.

Very few fail in pouring the models, but in casting models for plate work, models which are very much undercut, we meet with difficulties in separating from the moulding sand, which to the inexperienced, seem almost unsurmountable. The model drags when we go to throw it out, no matter what our skill may be in throwing it, and it leaves scars on the zinc die. These, of course, can be chiselled off with a small cold chisel, but it is almost impossible to restore it exactly. Even the shot swage will not do, because, unless your plate is swaged well nigh perfectly before it is put in the shot swage the small shot will get under the plate and frustrate your purpose. To overcome these difficulties, if your plate is much undercut, mix and fill in the undercut with "sump" or some other fire investment, allow it to harden, remove, smoothe carefully and replace in position. Your casting then becomes a simple operation, with no undercuts, and your little pieces are not hard to replace in the sand, nor are they difficult to retain in position, especially if two short perpendicular pins are imbedded in the pieces. These will not interfere with the separation and will aid you materially in replacing the pieces in the moulding sand.

Probably at no point have more failures been met than at taking the bite. It requires the most careful and painstaking study of each individual case in order to have it correct, and sometimes when we are surest, we find it a complete failure. In the mouths of those persons whom we term "jimberjawed" is it the most difficult, especially in full cases. The patient remembers the former protusion of his lower jaw, and in his endeavor to avoid that protusion in his new teeth, he will give you any sort of bite rather than the true bite. The play of his jaw is something wonderful and the correct position is almost past finding out. Experience is your best guide here. In one especial case the writer tried three different times, each time completing the plate on what was supposed to be the only true bite—but "the last state of that man was worse than the first." However, new impressions were taken, and in desperation the patient was asked to protrude his jaw as far as possible. That position was tried and, strange as it may sound, found correct.

Since that time if the patient is suspected of being jimberjawed the bite is tried that way. Following this method for several years these facts have been proven—that a jimber-jawed person can not protrude his lower jaw beyond the true bite—and the reverse of it has proven equally true, that a person who is not jimberjawed can not carry the jaw further back than the natural bite. In other words, the extreme position is the true position in each case. Of course there must be a dividing line somewhere between the two, persons whose front teeth almost directly occlude, and this knowledge will not be be of service here—but this class is so small that they need hardly be considered—they are the exceptions that prove the rule.

Much has been written recently about having the patient place the tongue up against the posterior palatal portion of the wax bite, and let him think that in that way he is helping to keep the wax in place and thus forget himself and give you the true bite unawares. It is an excellent plan too, in the ordinary mouth, but a distinct failure in the mouths of the jimberjawed. It is only a success because it carries the jaws to the extreme backward position.

One other point is that when the jaw is carried to its extreme position, either forward or backward it eliminates in a great measure the lateral movement of the jaw, and you are not so liable to make a mistake in fixing the lateral position of the bite. But the failure sometimes comes after a correct bite is taken. We are so accustomed to setting up teeth with the upper ones just biting over the lower ones, that we are prone to forget the case in hand and attempt it still—or else we will protrude the upper teeth just enough to occlude directly with the lower ones—and this too will cause failure. Examine the occlusion of the jimberjawed person and see how far within the lower teeth the bite comes, and then be governed accordingly in setting up the teeth in such cases.

In arranging the teeth in all cases, avoid failure by being careful to see that the force of mastication shall fall on the lingual cusps of the lower teeth, so that the pressure will be from within outward. It will prevent a rocking lower plate.

Flasking and separating is not a usual place for failure, but in packing the flask failure has frequently come. It is hard to know just how much rubber to put in—too little is as bad as too much—Numerous ways have been suggested. One is to weigh the wax and put in an equal weight of rubber—another to note the displacement of water in a vessel, caused by the immersion of the wax, and then take as much rubber as will cause the same displacement. In every day practice we do neither. We pack from experience and cut grooves for our excess. It is not often that we make a mistake here

—but we do frequently fail to see that the flask is perfectly closed. The heel of the flask is usually the last point to close, and when we see a set of teeth with all the cusps of the posterior teeth ground off flat, we can usually trace it to an unclosed flask. Being unclosed at the heel, the posterior teeth are too long and when these are the least bit too long you will be surprised how much it will open the bite of the front teeth.

Failures have also come to me from porus plates—nor is the remedy clear. It seems that when we are most particular we will be surprised to find the plate porus. It has usually been supposed to come from the too rapid raising of the heat to the vulcanizing point and that is certainly true when vulcanizing thick pieces of rubber, but in the ordinary thickness of every day work, it makes no earthly difference how rapidly the heat is raised.

Some experiments have led to the belief that the porosity is caused rather from a leaking vulcanizer than from too rapid heating. At any rate, the porus plates did not occur after getting rid of a vulcanizer with a small leak—although the best in the new vulcanizer is usually run up in ten minutes. Of course where extreme thicknesses are to be vulcanized, the heat must be run up slowly.

The old screw top vulcanizer with its leaky rubber packing, is fast giving away to the modern bar-lock which only requires the simple pressing down of the lever to close, and no rubber packing to be giving trouble.

Among the causes of failure in prosthetic work might also be mentioned what is known as "rotten plaster"—that is plaster in which the set product is not firm—it is not safe for models and even more unsafe in the vulcanizer—especially in repair work. Usually in this work we are in a hurry and can not spend much time on the setting of the plaster. We flask rapidly, vulcanize rapidly, cool rapidly and when we come to open the vulcanizer we find the plaster blown out of the flask, and if very great care is not taken the plate is warped, if not broken, in cooling. The best remedy for this is a new order of plaster—it is not worth your time to bother with it. But if circumstances are such that you are compelled to use it until you can get more, you can avoid trouble by allowing the plaster to set over night before beginning the vulcanizing and then use no artificial means to cool the vulcanizer nor the flask after you are through vulcanizing. But whether you have rotten plaster or the best plaster, all cases should be thoroughly hardened, and all heat gone from the setting plaster before you begin packing your case for the vulcanizer.

No vulcanizer should be used unless provided with a safety valve and the fact that they are not accurate or not uniform should not

deter us from their use. It stands to reason that the thin copper disc of the safety valve will give way before the thick walls of the boiler.

One great cause of bursting a vulcanizer comes from expansion of water rather than steam—the force is many times greater and especial care should be taken that no vulcanizer should be more than two-thirds full of water, including flasks, though it is said that the more water you have the more easily is your heat regulated.

Failure has often come to me from a lack of laboratory equipment. We too often try to econmize there when we would spend freely for operating equipment, and yet the one is no more necessary than the other, and money gives no better return any where than in laboratory fixtures.

Crown and bridge work, though they come under prosthetic work, need hardly to be taken up in this paper. My failures there have been numerous, but the chief and greatest failure was the failure to undertake the work at all, partly through lack of equipment and partly through fear that the work might not be as well done as others might do it. If we followed out this in other lines of work, many would not operate at all. No one should stand back on this account. The most skillful look back to a time when they took up the work with many misgivings but with a determination to succeed.

And so we should equip ourselves and our laboratory for all classes of work, and then should not be afraid to undertake the work—not with a feverish haste and speed, but rather with unfaltering sureness which brings its charm, believing always that 'tis better to have tried and failed than never to have tried at all.

DISCUSSION

Dr. R. L. Ramsey: I have thoroughly enjoyed the paper and think that it ought to be discussed. One special point to which he refers is the carving of the model. The remarks in regard to the patient also are valuable; and while I am not myself as familiar with the details of the paper as some of the other members, I hope some of the others will discuss it more thoroughly and fully.

Dr. Griffith: I received a copy of the paper some time ago at a time when I was unable to read it. Now as to this writing and speaking, with the view of edifying an audience, by recounting our failures, that is something that we have not

heard of before, but we all delight to discuss our successes. Now, that part of the paper, the first two paragraphs, the introduction, would form a readable paper in itself and would be worthy to go on the records of this association or any other association.

Dr. Wexler Smathers: I use leather, cut out the air chamber the size you want and put in another one, using the material about the thickness you want; and then cut a sheet of rubber about one-eighth or more extending out of the large part of the air chamber, or letting the little plate of the air chamber extend over.

Dr. Dameron: I don't think that the air chamber adds anything to the sticking qualities of a plate. I think that perfect adaptation is all that causes it to stick. I think that all an air chamber does is to prevent rocking on the hard palate, and I think that if those hard places are relieved by scraping the impression that is all that is necessary. I have been using the grooves in the model, and find them very satisfactory.

It now being 6 o'clock p. m., the convention takes a recess until 8.30 o'clock p. m.

EVENING SESSION

The convention reassembled and Dr. Flemming offered the report of the Committee on the Annual Essay.

The committee appointed to consider the Annual Essay, beg leave to report that we have examined the paper carefully, and that we consider it one of the best papers ever presented before the Society. The author has been extremely fortunate in his choice of subject, and has treated it with rare skill.

We recommend its carefully study by each member of the Society, feeling that each one will be benefited.

J. Martin Fleming
J. A. Gorman
J. E. Wyche

Dr. McCracken then moved that the report of the Commit-

tee on the Annual Essay be adopted. This motion was carried.

Dr. Turner then moved that Dr. Calvert be made an honorary member of this Society. Motion carried.

Dr. Harper then delivered an address on the "Life and Character of Dr. J. H. Benton". Dr. Harper spoke as follows:

"Instead of reporting to you a paper, as has been the custom heretofore, it is my purpose to speak to you concerning the life and death and character of our dear friend Dr. James H. Benton. There comes a time in the lives of a great many men and in the life of the society, when it seems but just and right that the pleasant anticipations and joys surrounding us should be laid aside for a moment and we should consider the life and character and influence on humanity of our brethern who have passed over the river.

On the third day of August, 1842, near Newton Grove, in Sampson County, Dr. Benton was born. While he was my senior by several years, our boyhood was often thrown together, and a friendship that lasted a life-time was bound up between us. He was reared upon the farm, and there as well as in all other walks of life faithfully performed the duties devolving upon him as a son. When the great struggle of the civil war began he entered the Confederate Army, became a commissioned officer, did faithfully his duty, returned home as the rest of us, poor in this world's goods, but rich in young manhood, and those characteristics that had been given to him and had grown up with him, began to assert themselves and prepared him for the great usefulness that lay before him, in making his impression upon the world and showing to the world that the destruction of property does not destroy manhood, and that though a man may be poor, there is no excuse for his not being a man.

He graduated in Medicine from the University of Pennsylvania in 1876, practiced medicine about fifteen years, and in that great community there is a tie that binds him in love to the hearts of those people whom he so faithfully served. It was always pleasant to meet and converse with a man so timid, so bashful, so brave, so good. But when circumstances developed in his life that caused him to see that it was best for him to give up medicine, he began to study dentistry, and graduated in Dentistry from the Baltimore Dental College in 1891. The remainder of his life was spent in that line of work. His heart was ever true to the profession, his hand was ever open to its uplifting, its upbuilding; not so much for the good of the individual as the good of the profession. He was always ready to do what he believed was right and just. Brave in all of life's conflicts, true in friendship as the needle to the pole, merciful

to enemies, compassionate, tolerant towards those who differed with him, and ever ready to help those who were in distress, were among the characteristics of the noble man. And in that way he has taught humanity, over whom he had an influence, some lessons that have been beneficial to a great many individuals.

He was lovable in character, pure, serene; with ideas that were uplifting, to associate with him was to realize that you were with a gentleman, to come under his influence was to be lifted up to higher aspirations, and to realize that you had a friend that would at all times do that which he believed to be right, and thereby has he so impressed himself upon humanity that 'though he is gone, he still lives, lives in that dear home of mental activity and progressiveness that lifts humanity

It is a very painful thing to have to go back over those memories, because of the hallowed associations, but we see in these examinations of our own lives the hand that helped to guide us into the better life.

I was glad when this society, a few years ago, honored him by electing him to its highest office, its presidency. There were shadows over his life. That dread disease, consumption, laid its terrible hand upon his three children, all of whom preceded him into the laud of spirits. And when a shadow fell over him, that clinging to friendships of youth was one of the most lovable virtues of the man, and one that endeared him to my own heart.

All things must have an end that are earthly, and so with those whom we love best, so with us all; and it is a sad thought to realize that on the fifteenth of September, 1904, our dear friend passed into the great beyond; he has left a life, a life's history behind him, (if you all knew him as I did) that would be a legacy to the society as it is a legacy to those who knew him best.

Pope says, "Oh what a tangled web we weave when first we practice to deceive." I remember quoting that in a conversation with him once, when he said, "doctor that is a lesson that has been impressed upon me, and my life's aim has been to deceive none," and his life in the practice of dentistry was so carried out that he did not aim to deceive any body, and that is one of the lessons that we might learn, to deal with perfect candor with those who trust themselves with us. Another lesson, "the way to have a friend is to be one," is one of the lessons that Emerson has taught us, and that was one of the things that bound him to humanity. It is not true friendship that intends to draw itself and send nothing to others, but to be a friend and do his duty faithfully in life's career.

Dryden says "ideas, like straws upon the surface float; who would search for pearls must dive below." It was characteristic of the man

to search for pearls, it was characteristic of the man to search for that which was the most enobling and uplifting, in his life, in his family life and in his friends, and the North Carolina Dental Society has sustained a lamentable loss in the death of Dr. Benton, but in his death he has left us a legacy, which we believe will be handed down, and we may say of him, as was said of another and by greater authority than ours, "though he be dead he yet speaketh."

Dr. J. M. Fleming:

I feel that I would hardly be true to myself if I did not speak a word in regard to Dr. Benton. When I first saw him in the society at Salisbury, he came to me in one of the rooms of the supply man, and he saw that I was in some trouble about selecting some instruments that I knew nothing about. He came and volunteered to help me in the choice of them. Then and there a friendship sprung up between us that grew in sweetness and strength. It is no disparagement of others to say that a very large share of the success that has attended the society has been through his instrumentality. I never knew a truer gentleman and never lost a firmer friend.

Dr. Dameron:

By the death of Dr. J. H. Benton this Society has lost one of its most loyal and useful members. He was a friend to the younger members of this body, and took an active interest in their welfare, and stood ready to aid them in any way he could. His life was an honor to his profession, and an example of integrity and uprightness that we should strive to emulate.

In this solemn hour, dedicated to the memory of those whom death has summoned from our ranks during the past year, I wish to bring my humble tribute of love and respect to the memory of Dr. James H. Benton.

Dr. Watkins:

The duty, or rather the privilege, of adding my humble tribute to the exalted character and the useful life of our deceased brother is sadly congenial to my feelings, for in so doing I place a leaf upon the grave of a cherished friend.

It is worth while, as we pass along through life, with all its trials and triumphs, sometimes satisfied with what we do, and at other times greatly dissatisfied, it is well in all these varying and trying experiences of life, with all its failures and all its successes, when we can recur to and dwell upon a life like that of our friend. He was a man

who discharged his duty void of offense. Were I asked to point out, in a word, the leading trait of character in our departed colleague, I would say that faithfulness was his crowning virtue.

In his life and conduct were found in a conspicuous degree kindliness of heart, promptness to serve his friends and associates, and untiring industry. As a man, he was, candid, honest, and full of sympathy, just such a man as one rejoices to call his friend. We shall miss him. Words can not compensate for his loss, but in his life we find an inspiration, teaching men the lessons of industry, kindness, and fidelity.

There is a resurrection and a life beyond the grave, and we who knew our friend believe that he will live where mansions are prepared for those who have lived lives of kindness, honesty, and faithfulness.

Dr. Ware, Dr. Turner, Dr. R. H. Jones, Dr. Arthur Fleming, and Dr. Griffith each spoke at length upon the life and character of Dr. Benton.

Dr. J. A. Gorman then read a paper on "Orthodontia," and prefaced the reading of this paper by saying. "Several years ago, at one of our meetings there was quite a discussion about Orthodontia, and some one made the remark that they wished some one would pay more attention to that branch of the work than they had, so I made up my mind to pay a little more attention to orthodontia, and see if we could get a better understanding of this difficult subject." Dr. Gorman then read his paper.

Occulsion is a normal relation of the incline planes of the teeth when the jaws are closed.

Articulation is the name applied collectively to the relations of the lower teeth to the upper as exhibited in the several movements performed by the mandible during mastication.

According to literature it has been over 350 years since the practice of Orthodontia began. Its history reads like romance, and is exceedingly interesting, showing as it does the wonderful unfoldings which have taken place in every phase of the subject. Even up to twenty years ago the most discouraging problem was that of Orthodontia, and I am told that an attempt to study Orthodontia from cases and appliances described at that time, was like the attempt to acquire a knowledge of the Chinese written language. It was not until Edward H. Angle solved the problem of mal-occulsions, and demonstrated the essential object of the treatment of Orthodontia

was the restoration of the normal occulsion, and then sounded the key note when he said that the mal-position of the first permanent molar is the principal feature in mal-occulsion of the dentures. We can say that the science of Orthodontia has attained a higher degree of perfection. It has been broadly studied; the etiology has been ably written, and the state to which the regulating appliances have been brought is probably very near perfect, and equally as simple. So that with our present knowledge of the science it is possible, by beginning at the proper age, to bring about wonderful results even in the worst cases.

Accurate and artistically made models are very valuable for treating cases in Orthodontia intelligently. First, on account of their importance as a means of diagnosis. Second, on account of their value in aiding in determining upon a plan of retention after active treatment has been completed. And third, as a means of education both for the profession and the laity.

Notwithstanding that Orthodontia has kept pace with the other sciences and branches of dentistry, yet to the vast majority of the profession Orthodontia is still a sealed book. Go where we will, through the streets of the village or the avenues of our great cities, into the churches, schools, or cars and we see these deformities confronting us. They occur in such great number that they seem to be the rule rather than the exception, and are even in the mouths of many who would otherwise be regarded as beautiful, for we all know how important a part the mouth plays in making or marring the lines of beauty. Why are so many doomed to bear these afflictions, in some cases most serious? The usefulness of the teeth are impaired, and who knows how many beautiful voices are also impaired, or forever doomed from the result of mal-occulsion. Look around you. Who has the strong features, perfect faces, good and useful teeth, beautiful voices (if any), to say nothing of their health? Dr. Bogue once said that the matchless voice of Patti would never have been heard had she been afflicted with mal-occulsion.

Who are our long lived friends? Have they not good occulsion, there for good mastication? Do you find Pyorrhea in normal occulsion? Do you find any decayed teeth in normal occulsion? No. Who is to blame? Is it not the dentist? How many of our little darlings fresh from the hands of the dentist, would have been saved at least seventy-five per cent. of their trouble by a little intelligent attention early in life. Why should Orthodontia, the most fascinating, both in study and practice, and certainly the most gratifying in its results of all the different branches of dentistry, be so neglected? Gentlemen, it is because we do not pay enough of our attention to the occulsion of the teeth. How many of you here can tell

me off-hand, the correct occulsion of the first permanent molar? Occulsion is the prime factor of consideration in any step of Orthodontia. On showing models to a body of dentists, what is the first question that is asked? It is this. Which tooth or teeth are you going to extract? None. And this when the knowledge of occulsion is manifest.

Gentlemen, let the forceps specialist hesitate and think before destroying these precious gems.

J. A. GORMAN.

The next paper on the programme was "The New School of Orthodontia", by Dr. J. S. Spurgeon. Dr. Spurgeon not being present, Dr. Betts read this paper.

A CRITICISM ON THE NEW SCHOOL OF ORTHODONTIA

In recent times the profession seems to have exerted itself on the subject of Orthodontia, and thus has developed what is termed, The New School of Orthodontia. In which, if the claims of the advocates were carried out, most every man, woman and child would be wearing some kind of regulating appliance.

And now, like with many other good things, the advocates have carried this thing too far.

In their enthusiasm in striving for perfection, they overlook the valuable results that may be attained by simpler means, and the amount of suffering that may be avoided.

Some of these men are bold enough to tell you that never, under any circumstances, should a tooth ever be extracted because of the crowded condition. But to me this is the most erroneous theory that has ever been taught to the dental profession.

And I am fully convinced that a judicious extraction at the proper age, a little pull with silk ligature or any simple means at the proper time, will give an articulation that is all that can be desired.

The class of persons that are usually subjected to this treatment are girls from twelve to sixteen years old, and of all persons on earth that should be spared pain and all possibility of nervous shock, it is these tender rose buds. At this tender age when mental and physical development are coming on so fast, even the psycological effect of wearing these appliances for a year or two is very bad in many cases, say nothing of the pain produced.

I have conclusive evidence that many nervous wrecks are being made of some of our brightest boys and girls, and one death has

been reported and charged to the hands of our enthusiastic orthodontist.

Brothers let us spare these boys and girls all the pain possible. For what is a beautiful set of teath or a beautifully shaped face, when it has to adorn the body of a nervous, poorly developed person. for after all the beauty of any person is not in the smooth, even features of the face, but in the vivacity of the expression, and often some little irregularity about the face or teeth only adds charm to the expression and strength to the character.

You know there are some in the profession today whose greatest delight is in expanding the arch, jumping the bite, expanding or reducing the contour of the face, to all such I would say beware lest your evil deeds live after you.

Now don't understand me to mean that we have no use for the orthodontist for his is a valuable and laudable part of our profession, and he has done much to bless humanity, but what I do mean to emphasize is that he should use a little more discretion, and if by a judicious extraction, a little help here and there, you can get a fairly good articulation without moving all the teeth in the mouth just for the satisfaction of saying that you have attained perfection. Then you have rendered your patient the greatest amount of good and done no harm.

And now in support of my contention I have here the model of three different mouths, all of which have a fairly good articulation and the contours of the face have not suffered thereby.

No. 1. Thirteen years of age, upper first bicuspids extracted soon after their eruption. The lower bicuspids were not extracted because the chin was not quite as prominent as I thought it should be.

I believe now that the contour of the face and the articulation would have been better had they been extracted at the same time. However the contours of the face of this child are good, and the articulation is such that I see no need for the Orthodontist.

No. 2. Eleven years of age, the four first bicuspids were extracted soon after they appeared. As the child grows older the articulation will improve. To my way of thinking the contours of the face and the articulation is all that could be desired.

No. 3. Nine years old, with all the temporary molars in position. In this case I think all the first bicuspids should be extracted as soon as they appear.

In another case I hoped to have the model but failed to get it. It presents a mouth with lower first molar on left side and upper right first bicuspid extracted when young. The party is now twenty-five years old and a more shapely face or a better articulation you

seldom see. I expected to have a photograph of all these models but in this I failed.

And now thanking you for your kind indulgence, and hoping that these few remarks may save some poor child from unnecessary pain. I am,

Faithfully yours,
J. S. SPURGEON

DISCUSSION

Dr. Harper: I believe both of these gentlemen's papers are subject to criticism. I believing in commending wherever we can, and criticizing when we can't help it. I believe I have seen all the models presented by Dr. Spurgeon. I believe that all of them would have been improved by Dr. Gorman's method of expansion and retention.

Dr. Gorman: Not my method, the method that I use.

Dr. Harper: I stand corrected. I believe it is best to save the teeth wherever it can be done to the greatest advantage, but every case that comes up has its own peculiarities, and while I don't pretend to be perfect on those lines, I have been observing them for lo these many years, perhaps I ought not to give you the exact number. In many cases in my own experience I find it best to extract, but in the long years of experience that our friend Gorman has had, perhaps he can accomplish his work without extraction, but nevertheless, I believe there are cases where there ought to be extraction. Dr. Gorman believes that what we see in the churches, in the cars and elsewhere is the fault of the dentists. I do not believe it, because most of those dear little children have never seen the inside of a dental office, and when they do come in, there is a fidgety mamma and a double-barreled papa, and sometimes we have to say, "I will be compelled to differ with you, or I must decline to operate". I think the dentist knows better what should and what should not be done than the father or mother. With an intelligent father and mother a great deal of the trouble could be corrected in childhood by finger pressure, by locating those teeth as they grow, by helping this occlusion, and bringing to bear that perfect occlusion that ought to be in

every child's mouth, nearer that perfect articulation, that beautiful distinction that Dr. Gorman has drawn. I like to see these things, I like to help bring about all those things, but we need the help of intelligent parents. But the great number of people we see are not able to pay for such an operation.

Now the question arises, shall we, as dentists, extract teeth, correct irregularities, bring about good articulation and good occlusion if we can, with very little expense, or let things go along just as they are. I think sometimes it is better to adopt the shorter way where people are not able to pay for it.

There may be a great many of these irregularities that can be corrected right easy. Suppose an upper central or an upper lateral, or both or one of each, are shut inside of the lower central, or it may be so as to be completely shut in. I make a large gold filling to hold those teeth apart, and teach that child to bite that way, not to bite horizontally but perpendicularly, and with that little assistance the teeth are thrown out in six to eight days' time, and when that is accomplished, cutting out the filling is a simple operation, without much expense and withuot much pain.

I very much appreciate the bold, progressive spirit that is manifested in Dr. Gorman's paper; that is what makes dentists, and I do appreciate anything that reaches forward with the determination to do something, to put us to thinking about orthodontia or anything else—that gives us reputation, that has made the North Carolina State Dental Society second to none in the South, and hence I endorse such papers and I endorse the man who is brave enough to make such assertions, and perhaps in a few years the doctor will show us that boys like me have yet a thing or two to learn.

Dr. Betts: I know the Society appreciates the commendable enterprise of our young man at Asheville for furnishing this very valuable paper, and these instructive lantern slides. I have no use at all for a fanatic in any branch of the dental art, but I have very great respect for an enthusiast. Some few years ago, before I had had much experience in bridge work, I read before this body a paper on bridge work, and in some

of the criticisms of my opinions, I ran across one or two enthusiasts who wanted to accomplish what I did not think I could do, and even today, since I have done a great deal more crown and bridge work, I have some conservatism on that line. I am conservative about this thing of orthodontia, and I like the enthusiasm of my friend, Dr. Gorman. I am sure he has given the subject a great deal of study, and I think if he keeps on in the line in which he has started we will be very much more edified.

Now, we have found that he and Dr. Spurgeon differ very widely in their ideas of orthodontia; but there is a conservative line and we can come a great deal nearer together on those, according as circumstances demand, we can extract the teeth. Now it would be folly for us to put a month's time, or two months' time and expense on a case that we were not to be remunerated for, but even if we did get remunerated for it, I don't believe in a man's throwing away his time on a person who don't appreciate it, and I think that the simple extraction of a bicuspid, where the person is unable to pay for the work is thoroughly justifiable. I think we are thoroughly justified in doing the best we can.

Dr. Fleming: I should like to hear from our visiting dentist, Dr. Calvert, on the subject of orthodontia.

Dr. Calvert: I don't know that I can say anything of interest to the members present. This subject of orthodontia is one that is commanding more attention now than in years past. It has only been in the last twelve or fourteen years that we had anything like a positive system, so that we could take charge of a mouth and tell the patient exactly what the result would be after treatment. I think that in the great majority of cases extracting is resorted to, that there is too much interference before we give nature time to assert herself, and see just what the result will be, and in a great many cases where the patients are women, I think we often extract too early. I understood Dr. Gorman to say in his lecture that he would never extract. I think there are many cases where extraction is the only thing to do. When those models were

passed around I noticed that the occlusion appears to be good in a way, but I do think that in both of those mouths if those teeth had not been extracted, they would have been in better condition than they are today. If you take this one (indicating No. 1), and those lower cupids are prominent, and we note in this mouth just the room that has been sacrificed by the extraction of those two teeth. In this mouth (indicating No. 2) the occlusion is good, and I say I think if that mouth had not been interfered with, if all four of those bicuspids had not been in that mouth today, that patient would have been better off and present a better appearance than he does today. The articulation is very good, but there is this depression, there is not that prominence that characterizes a perfect arch.

Dr. Gorman: Is that occlusion normal?

Dr. Calvert: No sir, it is not what we call a normal articulation. In what we call a normal articulation the lower molar would cover two-thirds of the upper molar. The subject is commanding more attention and we are getting more efficient, and as time passes on, we are getting better results.

Dr. Osborne: I don't know anything about it. I rather stick out in this matter in this way, that I believe this work ought to be relegated to specialists in this kind of work. I think that the time that is necessary to do this work well and the knowledge to do it well, that is required to perform this work, is a little too much for the average practitioner to get hold of. I don't believe he has time to do it, and I don't believe he ought to try to do it. And I have thought that there ought to be two, or three or four specialists in the State, men who made it their business to study this subject, study it as it demands to be studied, and that the other dentists in the State ought to send their cases to them. I believe there is a time when the best regulator is a pair of forceps and all of us can do that—we ought to have sense enough to pull the right one—but I mean those cases that take a long time. I have often looked upon it as a very difficult thing to do, to correct crooked teeth, and I hold out for a specialty. This subject is the hardest thing for me to get hold of, because I don't know anything

about it, but I think the men who ride this very hobby, say you must not extract teeth. I don't believe a word of that. I have models, before and after pulling the first bicuspids, and I think they look just as well as they are as if you had spread the arch. I believe it, but I never tried it but one way, I could not try it but one way. I remember one elderly gentleman, whom I did a great deal of filling for, and he had had a great many sittings while I was filling his teeth and he asked me one day if I saw anything wrong with the number of teeth, before I saw that he had a missing tooth.

If a man chews all right and looks all right, what is the use of spreading the arch and jumping the bite? Pull out his teeth and go ahead, maybe he is a man who can't pay you over fifty cents.

I don't hardly understand Dr. Spurgeon's paper. His advocating orthodontia and making out that everybody is being killed by orthodontia; but I don't believe it. I don't believe that our man who makes this a specialty will kill all those people, or that he will destroy those "tender rose-buds" that sometimes turn out to be regular old thorn bushes.

Dr. Gorman: I have enjoyed the discussion very much indeed, and I am very glad that so many have opposed me, and I never was so much delighted as when Dr. Osborne said that he did not know anything about it. If a great many dentists would say they knew nothing about it and leave their patients alone, they would be better off, and as Dr. Calvert said, "too hasty extraction will do a great deal better than too late extraction." I have never heard in the last three or four years of any one being killed or maimed from the results of orthodontia. I have been in touch with quite a number of the specialists all over the United States, and if anything of that kind had happened, it would have spouted out before it got down here to Danberry, N. C., and I don't see how correcting any mal-articulation could kill anybody. I have got patients from ten to twelve years and up and they don't seem to mind it. Of course there is some soreness for a few days.

In Dr. Spurgeon' model No. 1, he has extracted those first

bicuspids. Certainly there is no articulation of those molars, and if he had left those bicuspids in, or standing, to my mind in the correct way, to get the correct articulation of those molars, he would have gotten better results, to say nothing of the harm to his patient. As it is now, that little girl will not have more prominence of the chin, but Dr. Spurgeon says that the chin is not out of proportion, but Dr. Spurgeon must remember that the child is only thirteen years old and the wisdom teeth have to come in, and will have the effect of forcing those teeth considerably apart.

In No. 3 the little girl is nine years old; he has evidently extracted something here, and it looks now that there would be no room for the cuspids to come in. If you will bring the bicuspids to their normal position there will be far more room—

Dr. Patterson: Have the bicuspids been pulled in No. 3?

Dr. Gorman: No sir: that is only a nine-year-old patient. "Age eleven years old", in No. 2, he has pulled the first bicuspids, and No. 3 will be just like No. 2, when she gets a little older. She will have that lack of expression here (indicating), and heavy lines.

Dr. Osborne spoke all about men, but never said a word about the ladies, except about the "thorn bushes". To my mind, ladies appreciate the beauty of their face as much as anything, and the beauty of the face lies in the expression of the mouth, and he also says there is a good expression, even though the mouth is not pretty. There would certainly be lack of expression, if the mouth was not pretty.

Gentlemen, I do not believe in the extraction of teeth to correct any mal-articulation, unless they are super-numerals. I extract super-numerals, but never extract anything else.

Dr. Patterson: What would you do in a case where the canine is entirely out of the arch and the articulation good without it?

Dr. Gorman: Certainly all the articulation can not be good, if the person is only thirteen years old, if there has not

been the space allowed these centrals to lean inward, instead of outward, with the correct expression.

Dr. Patterson: There is no space there.

Dr Gorman: Make space. Expand the arch in the bicuspid region and bring out the centrals and laterals and allow them to look, as it were, the two keystones to the arch.

Dr. Patterson: How are you going to get it back in the arch? It is entirely out of the arch and slants a little with the point backward.

Dr. Gorman: Do you mean to say that it is slanting back?

Dr. Patterson: Yes, slanting a little bit back.

Dr. Gorman: When you gain your space in the central-lateral region, you can bring that back, and there is more sound structure surrounding those teeth. I have models which show deposits of bony structure around those teeth with age. Some of my patients complain of a little pain, but before they get out of the reception room they are not complaining. They say that there is no pain at all.

At 11 o'clock p. m., the Society adjourned.

THIRD DAY—MORNING SESSION

At 9 o'clock a. m., the Society re-convened pursuant to recess taken, and Dr. F. E. Perkins then read his paper on "Prosthetic Dentistry."

A FEW CONSIDERATIONS IN PROSTHETIC DENTISTRY

By Dr. F. E. Perkins, High Point, N. C.

It is with a pronounced degree of diffidence, and yet with a lively sense of the honor this Society has conferred upon me in inviting me to appear before it on this occasion, that I present to you my first professional paper; and, while thanking you for the courtesy of which I am the object, I can not but feel how much more you might have bettered the selection of your object than your subject.

There are few, if indeed there be any, subjects that could more properly engage our most serious consideration than that branch of our profession called Prosthetic Dentistry. In the few remarks I have

to make on this subject I shall confine myself to plate work entirely.

There are numerous things that demand our attention in the construction of an artificial substitute for replacement of lost dental organs, and when we are sensibly familiar with the offices and functions subserved by the natural organs, then our degree of success will be in proportion to our skill in applying our knowledge and in carrying out our ideals.

First, let us consider the offices of the natural teeth. They are given to us to serve our purpose in the mastication of food, to preserve the proper contour of the face, to aid in the enunciation of spoken language and to maintain the normal relationship of the upper and lower jaws.

From a certain standpoint the relation of the teeth to the appearance of the individual is of the first importance, and considering it as such I shall reserve it to the last while I touch briefly upon some other sides of the subject.

We are all acquainted with the importance of having a good impression to begin with, and the uniform accuracy of our impressions depends largely upon what impression material we use and how we manipulate it. Beeswax gives a moderately good impression of an absolutely flat surface; that seems to be about its limit. If you are uncertain about obtaining a good impression, modelling composition will only add to your uncertainty. To use modelling composition in connection with plaster of Paris is only a waste of time in a great many cases and frequently complicates matters. At best you have only a plaster impression with possibly a good deal more trouble. With plaster of Paris alone, properly manipulated, we can obtain an absolutely accurate impression of any case, no matter what the conditions or difficulties. I shall not occupy any more time upon the subject of taking impressions, as it has been exhausted time and again, and I will venture that there is not one of us who has not all the knowledge at hand upon the question, and I have no new suggestions to offer.

The question of the relation of the teeth to the voice is one that has received very little consideration in our text-books, notwithstanding its importance. The peculiar mechanism necessary to produce the full and unimpaired resonance of the human voice combines the perfect blending of certain acoustic principles, and any alteration in this mechanism necessarily influences the voice, and the teeth are not the least important factors in the articulation of speech, as is evidenced when we listen to the conversation of one who has lost these organs, and the closer we simulate the natural in the construction of the artificial, and the less space outside that we can occupy, then the more natural and normal will the voice be. How often have we noticed the peculiar hissing sound with patients wearing faultily constructed

upper dentures in trying to pronounce a succession of "esses", sometimes amounting to a shrill whistle. This indicates nothing more nor less than gross ignorance or carelessness on the part of the dentist—carelessness mostly, I believe, as who amongst us doesn't know the importance of the little fullness just back of the upper front teeth. "S" is only short "e" continued to a slight hissing, produced by almost touching this little fullness with the tongue while the expiration of the breath is continued. If the little fullness is not there, then the "s" isn't finished until it bespeaks a badly constructed set of false teeth. Our work should always receive careful attention here as elsewhere, and we can do our patients a quite delicate service too, by even reproducing the rhugae. But how often do we see this?

The preservation or restoration of facial contour and naturalness of appearance is a question that calls into play our best judgment and into exercise our utmost skill. Indeed it is just here that our patients demand the most of us.

As I have already stated, from a certain standpoint the relation of the teeth to the appearance is of the first importance. The loss of one or two of the upper front teeth would not seriously interfere with our comfort or effectiveness in masticating; the relation of the jaws would not necessarily be disturbed; facial contour would not be changed materially; speech might not be seriously interfered with, but think of the havoc wrought upon the appearance of an adolescent youth of thirty summers by the loss of three front teeth, especially if he be red headed. Think what a wreck it would make of his most winning smile. Then you can readily comprehend that the question of appearance is not the least desideratum, but on the contrary one of the most important, and it is not a question of vanity with our patients when they demand that our work shall be natural and life like in appearance the very first thing. There are so many factors entering into this part of the subject that it would be impossible to discuss them all fully in this brief paper. So I shall discuss briefly the things which most readily suggest themselves as bearing upon this topic.

Temperament and the classification of teeth are two uncertain quantities, although the subject of temperaments has been beautifully exhausted in some of our text-books, and elaborate schemes have been tabulated which are about as useful to the practitioner as "Mendelejeff's Periodic Law of the Elements". There are no two leaves in the forest alike, no two human beings in existence with temperaments alike, and probably no two with teeth alike, although they may closely approximate in size, shape and color; so much so indeed that practically they are alike. Hence it is that a given set of teeth is entirely suitable for numerous variations in temperament. We should be able of course to recognize the distinctive classes of temperaments.

This will aid us somewhat in our selection of teeth, but after all it is largely a question of judgment. How much easier it is to select the proper size, shape, and color if we have a few natural teeth left to guide us.

Before preparing the mouth for an entire denture we should make as complete a record as possible of all the conditions—length of the lips, high and low lip lines; length, size, shape, and color of the teeth, etc. This will simplify matters greatly and avoid a great deal of uncertainty. When a patient has gone for some time without teeth, a great deal of absorption has taken place, and the lip muscles have drawn up with the consequent shortening of the lips. It is sometimes a matter of uncertainty to determine the high and low lip lines, or what the length of the lips should be. I have known one case where a lady after having gone for a year without teeth, complained when she had an artificial denture constructed that the teeth were too long and showed too much. Six months later the same lady came in to have her teeth made just a little longer. Nature always makes an effort to adjust everything to all new conditions, and she succeeds frequently to a degree that gets the poor dentist into trouble, and I will remark just here that we should never allow ourselves to be influenced too far by suggestions from our patients, as I have known such suggestions to defeat the very object which it is our purpose to attain. But—to digress just a little—our deepest and most abiding trouble usually comes from the friends of our patients. Have you ever noticed how frankly one lady can tell another that her false teeth are not becoming?—are just a little too long, a little too dark to suit her angelic complexion, a little too white to look natural—and keep this up with enough persistence to make an ordinary individual dissatisfied with the finest set of natural teeth ever sprouted. This doesn't presuppose that the dentist does a perfect job every time, but I heard of one noted prosthetist one time who closed his family prayers always with something like this: "O Lord, deliver me from battle, murder, sudden death, and the friends of my patients".

We have no means to prevent undue absorption and some times irreparable change in facial expression as effective as the immediate insertion of a temporary denture. In fact this is the only solution of the most important problem. In nearly all cases an upper denture is required first, and immediately upon the extraction of the upper teeth what to do is clearly and absolutely indicated. The question of size, shape, color, and position is already settled, but these are only a few of the advantages. The presence of a temporary plate not only preserves the expression and facial contour, but seems to prevent the absorption of the alveolus to the extent that is sometimes so diastrous when the gums are left to shrink after the teeth have been

extracted. Temporary plates, if properly constructed, always adhere nicely. Indeed I have been surprised frequently at the tenacity with which a temporary plate would cling to a comparatively flat vault, but the reason for this is not hard to find. It is simply a mechanical proposition. The vault though shallow is clear cut and distinct, and is probably as deep as the deepest vault would be after complete absorption of the alveolus had taken place, and when a patient has to discard a temporary plate the trouble of getting a permanent plate to stick is eliminated. Hence the importance of strongly advising our patients to wear temporary plates always where indicated.

DISCUSSION

Dr. Wheeler: I like a paper that antagonizes my views, and I also like a paper that is so nearly in accordance with my views that it does not antagonize them. I don't know which I like the better, but at any rate that is the condition of the paper just read. I have been struck with the numerous good points given by Dr. Perkins on "Prosthetic Dentistry". I think that too many of us are inclined to give too little attention to plate work, but it behooves us, at this day and time, when we have a world filled with dental parlors, advertising factories that are grinding out plates by the score, without any attention to the mouth's needs, I say that it behooves us to give study to this work. "The highest art is to conceal art".

Dr. Perkins has made some very sound points in his paper. He says that the first thing is to get a correct impression, and I will say that sometimes I have not stopped short of five impressions, and I would not stop under twenty, if I did not get a good one. No man can make a good denture on a poor model. You must have a good impression before you can do good work. I was struck with what he said about the appearance of the plate before you put it in. It is wonderful the amount of expression you can get just simply by twisting the teeth a little this way or that. They are beautiful when they come to us from the manufacturer, as they should be beautiful, but we are not supposed to leave them as the manufacturer sends them. It is our duty to shape them so as to bring them to a natural expression. I remember an old lady who came to

me at Beaufort to get some new teeth, and about a year afterwards, when I met her, she said that she did not like those teeth, that her friends all said "they thought they were my natural teeth." That was the highest compliment she could have paid me. The Lord deliver us from the friends of our patients I say. You might as well decide that you are going to have trouble with your patients friends from the beginning. I feel that Dr. Perkins has given us a paper that will be productive of much good, and I hope that we may have a full and complete discussion of it.

Dr. Osborne: I will not discuss the paper. What I had to say has already been said, but I have one suggestion that might be of importance that I should like to make, and that is, how to make the plate stick. But there is one little thing, if you do that it will help to make the plate stick, and that is, just as soon as you get the work done, stick the fee in your pocket, because you have that to overcome if you don't do it.

Dr. A. H. Fleming: One of the strongest points in regard to making the plate stick, is keeping the patients away from their friends. I had a patient some time ago that I made an upper plate for, and I had taken a great deal of care with it, because she was a very particular woman. She had mentioned the fact of articulation, that her work of teaching necessitated a great deal of talking, and she did not want a plate that would interfere with her talking, and I took into consideration the woman and made the plate. The plate was decidedly off shade, but the articulation and the voice were perfect; so I selected the shade for the centrals and for the laterals, the centrals and the bicuspids I selected a yellow shade and then the molars I selected a yellow shade and touched them up to correspond with the teeth of a woman of middle years, and she was satisfied with it and she wore that plate and it stuck. One day, however, she brought it back and said that she was very much dissatisfied, and I saw that "hot air" would not work, and she said that her mother had a plate and that the teeth did not set in that way. And I asked her what seemed to be the trouble, and she said she could not pronounce the letters "s" and "z". So I made the plate over, but did not re-vulcanize

the rubber, and when she came back, I told her that the teeth were longer and I thought it gave her a better appearance. So I think a great deal that we have to do is to keep the patient from his friends. If she had not seen her mother she would not have had that trouble.

I saw a young lady once who was very accomplished. She had a very well-cultivated voice, and I was talking about it to one of her friends from the same town. I said that it was very peculiar that this young woman should have such a well-cultivated voice; that she had false teeth. I had an opportunity to see her teeth and they were artificial; but I am sure that it was just as Dr. Perkins stated in his paper, that it was through study of the formation of the mouth. This young woman's mother had had so much trouble with her teeth that she had prayed that her children would never have any teeth, and that became true. This young lady never had had but two teeth. She was about twenty-two years old, and her dental contour was restored, in fact as to whether it was ever lost, I am not sure.

Dr. Turner: I have not heard the paper, but I have heard some little discussion on the subject, and I am glad that the dentists have evidence of the effect of prayer in the matter of teeth. It must be the beginning of a sort of millenium with people who have good teeth. I don't know what is to be the result for the dentists. I was very much struck with Dr. Osborne's explanation of how to make the plate stick. I think that is a very important point in the case, because I feel that the "hot air" don't always answer, until the fellow has paid his money. "Hot air" has a good deal to do with the satisfaction that people have with the plates, provided they have not paid anything for them. I remember when I first commenced practicing I had an old lady (a lady perhaps would be better), and she had all her teeth taken out and a new set put in, and after she had worn them two or three days she eame down and said, "they are too short in front, and too long behind", and she said they "pinch up here, and don't pinch down there, and it tilts on one side and don't tilt on the other". And she

told a number of other things, and when she had gotten through I was in a good fit of disgust for she had not paid for them, and I said, "is that all", and she said "yes", "except that Aunt Louise says it looks like Sallie Smith's teeth", and I turned my eyes down and said, "anything else"; and she said "yes, it seems that they get on edge," and after she had gotten thoroughly through, I said, "this requires a good deal of thought, but I said, I can safely say that it would be impossible for me to effect all the changes that you desire, but that last showing that you made, that getting on edge, I can manage that, and I think that I could manage everything except having them short behind and long in front". And I said, "I am not the only dentist, and you had better go to a dentist who might do better". And directly she smiled and said, "Doctor, you don't mean that I have got to go without teeth"; and I said, "yes, until you can get a set made", and she said, "why, I can't wait until I can get another set", (she had previously said that she could not eat on them) and I said, "nobody will be better gratified than I, if you get a set that answers your purpose", and she said, "Doctor, won't you let me try them again", and I said, "No, I don't believe I would risk my reputation, for a few dollars that you pay me does not compensate me for the criticisms which you have made". But finally, after sitting awhile, she said, "Doctor, I will esteem it a great favor if you will let me have those teeth for a few hours", and the next morning I got a note from her, stating that they were delightful and answered every purpose. There is a good deal, as Dr. Osborne says, in settling the question of pay before you try those experiments, and a man or a woman is often better satisfied after they have crossed the Rubicon, than when they are trying to cross. And there is another matter, and that is that no matter how well the plate sticks, the thing often happens that the dentist is stuck better than the plate.

Dr. Perkins: I rise to express my appreciation of the remarks of Dr. Osborne, Dr. Wheeler, and the others who have made remarks on the paper.

Dr. A. H. Flemming then read his paper, "The Porcelain Prestige".

THE PORCELAIN PRESTIGE

Mr. President, Ladies and Gentlemen:—

The time has come when perfection, beauty and durability have proven the worth of porcelain; and until an absolutely insoluble cement is discovered, and one that can be shaded to any tooth, porcelain will hold the prestige and be the ideal material for the restoration of lost or impaired tooth structure. It is an admitted fact that the dentist who can produce the most natural, cleanly and esthetic mouth is the one to whom not only the patient and the people cede the prestige, but his scientific colleagues look with admiration upon his work and praise his good results. If these things be true of the operator, they are just as true of the material by which he gains his fame.

If the gold filling in the average man's mouth could speak and tell of its cervical condition, it would undoubtedly speak the praise of porcelain; if the great majority of alloy fillings could speak, they would say, "for God's sake take me out and replace me with anything that will stop this recurrent decay and keep this cavity clean.

There are many that do not do a porcelain practice, and who do not aprove of the inlay system, because they do not understand wherein an inlay is better than a gold filling. He is the man who bought a porcelain outfit and, without any practice on a model or any previous training, undertook to restore a large contour, with the result that he missed the shade, got a poor adaptation, and much to his pleasure the inlay came out; then he tells the patient that he has given porcelain a thorough test; then he classes it as "new-fashioned dentistry, and says that it has been weighed in the balance and found wanting. He replaces this with a large gold filling and it stays, and he is satisfied. Practice and experienced are required to perform properly any operation, from the excavation of a ditch to the production of a perfect porcelain inlay.

Suppose the man who is a good gold worker, and has given porcelain a thorough test, of three or four fillings, and is convinced that it is no good, could see the first gold filling, or the first ten he ever put in, and these done under professional supervision, would he then say that gold is no good because it has flaked, chipped, broken, turned dark, or because there is recurrent decay at the cervix? A good gold filling is harder to make than a good porcelain inlay, and few of either are good unless backed by skill, experience and practice.

There is another side of the porcelain practice to be considered,

aside from the result; and that is the strain on the patient and the operator. The great amount of pain inflicted upon patients in getting deep undercuts and retaining points for the retention of large gold fillings has been the greatest factor in producing the dread of the dentist's chair. However great the harm done in producing this fear, the greatest harm is done to the operator, who stands in a bent-over, strained position and, like a dental woodpecker, pecks for hours on a few sheets of gold. He has reduced the life's average from thirty-five years to fifteen, and has tried to do all the work he could and in many cases kept up on stimulants until he is a nervous wreck, or has become addicted to his stimulants and is unfit for practice.

Our practice is what we make it. Then why not make it a high class practice and reap the benefits and satisfaction that come to a high class operator? The man who can do the best, and for the best will ever be admired and considered authority in his section.

The first great care in the construction of a porcelain inlay is separation and preparation. Without proper separation it is impossible to restore the contour which so greatly influences the shade of an inlay. The cavities should be prepared without undercuts, and with clean, clear cut edges, smooth, regular and highly polished. The walls of all cavities should slope from the edge towards the center, and the bottom of the cavity should be flat, or as nearly so as the nature of the case will allow. As a rule, the deeper the inlay, the better the retention; and by having the walls slope towards the center from the edges, the inlay will settle just the uniform depth of the thickness of the matrix, and not set flat in the cavity. The shape of the cavity also has a great deal to do with the durability and color of the inlay. This is learned only by experience, and it is often the case that you will find you have sacrificed strength for color, or color for strength, in the shape of your cavity. The strongest inlays are those upon which the force of mastication is direct against a shoulder. This shoulder is generally at or near the cervix, and it is very difficult to match the shades at this part of the tooth; and most especially so if you have to deal with an angle. The shades are more easily matched when the lines are curved and symmetrical.

The getting of the matrix is the next step. This is done with platinum foil which has been well annealed in a furnace so that there is no spring in it. The matrix material should be large enough to overlap all the edges of the cavity, but should not be so large that it will hide the general shape of the tooth or touch any other tooth while the matrix is being made. If it is possible to do so, the material should always be in such a shape that it can be held in or over

the cavity with the fore-finger or thumb of the left hand, or preferably with both. Wet cotton is then used to force the platinum into the cavity, and this is aided by force against a flat burnisher, or with the aid of the foil carriers. The cotton is then removed and the platinum is burnished over the margin with smooth burnishers and then gum camphor is packed into the cavity with a flat instrument and allowed to extend well over the margin. Rubber dam is sometimes used; when it is, it should be wet, and the burnishers should also be wet to aid in slipping over the rubber.

The most important thing, next to the retention, is the shade. As I have pointed out, the shape of the cavity has a great deal to do with the shade. It is seldom that you can select a shade that will exactly match the tooth; but you must bear in mind the fact that there are but three primary colors in every tooth, and these shades which are so numerous in different teeth are but blendings of these three colors of red and yellow and blue. The first thing is to pick out the quantity of each of these primary colors in the tooth separately, which when blended will produce the secondary shade of the tooth. Devitalized teeth are much harder to match than vital-teeth.

It is almost impossible to get a perfect shade in refracted light, owing to the shadows, and the light should always come direct and from one way. The tooth should be wet with saliva, and the shade guide from which you are trying to select the colors should also be wet. This gives both a nearer equal refractive index. The shades having been selected and mixed, the next step is filling the matrix and baking.

The first bake or two should be made in a shade which most nearly resembles dentine. Generally the shade R or S is used for this. A thin layer of this body is spread all over the matrix and fused. In the center of this is then placed a small quantity of zinc oxide; this is dried, covered with more body and fused. Then the shade of the inlay is put on, and the proper contour built and fused.

After the filling is completed and the matrix removed, having first been wet to facilitate its removal, a groove is ground all around the body of the inlay which extends beneath the cavity margin. The back of the inlay is roughened with a stone, and a whole is ground through the back of the inlay to the zinc oxide, which is then washed out and leaves a double retention for the inlay. The cavity is then undercut and dried, and the inlay is ready to be set.

The cement with which the inlay is to be set should be thin; and some of it put into the cavity and some of it into the hole in the back of the inlay from which the zinc oxide was removed. The in-

lay is then put into position and held firmly into place until the cement is set.

When the cement is thoroughly set the tooth should be wet, and the excess cement can be easily removed. With these precautions carried out, you will have the most esthetic, serviceable and durable filling that can be made. Until an insoluble cement is discovered, porcelain must have the sway. The art is easy, pretty, time and labor saving, and the operator who insists on condemning it because he does not do it, does the art but little harm in comparison with the harm he does himself as a high-class, skilled operator.

ARTHUR HYNES FLEMING

June 22, 1905.

DISCUSSION

Dr. Watkins: As an apology I wish to say that owing to peculiar circumstances, I shall confine myself to some notes that I have made on this subject. It was with a degree of sadness that I heard Dr. Fleming read his most excellent and complete paper, because I realize that he is now leaving our State, and we reluctantly part with him, one of the most promising and bright young men in our profession. The paper is indeed very complete, and he has so well covered the ground that it is hard to add anything of interest.

While we all will greatly welcome the advent of an absolutely insoluable cement, we realize that we are not much nearer a perfect cement than we were years ago. Porcelain is the ideal material for the restoration of lost tooth structure, and it is now our duty to become masters of this ideal preparation. Those of us who (because we failed at first) are saying that porcelain has been "weighed in the balance and found wanting", should remember our first gold filling, and think of the discouragements we had to overcome before we could *even insert* a gold filling. Let us take up this porcelain art, and strive to do the work, until we can overcome the difficulties, and place porcelain in our practice as an ideal restorer of lost or impaired tooth structure. One of the greatest advantages in the manipulation of porcelain is the lessening of pain to the patient, by leaving off the deep under-cuts and retain-

ing points, and it is refreshing for them to sit back and read while we are baking the inlay, instead of spending the time under the hand, automatic or electric mallet.

Dr. Fleming goes into detail, and covers every step in the construction of an inlay so very thoroughly, that a novic could take the directions given in this paper and make a good inlay. The great objection to the use of platinum for a matrix is that it is stiff and harsh; while with gold you can get a more perfect matrix. Many use platinum 1-1,000 inch in thickness, which at times gives us trouble, but the White Company are now preparing platinum 1-2,000 of an inch, which works to better advantage. But with this *extra thin* it is better to always use the camphor as described in the paper. I generally use wet spunk instead of cotton, and carry the matrix well down to the bottom of the cavity. This is best done with pliers with ball burnisher on end. With matrix filled "flush" with wet spunk, and no folds in your matrix, small chamois-skin disks pressed and burnished against margins, makes them clear and well defined. It is well to burnish with flat burnisher, and also use the dam or cotton tape which will prevent the matrix from rocking. Now use the gum camphor, which will enable you to remove matrix without warping. At this point it is well, especially with a low fusing body, to invest your matrix in asbestos powder mixed with water, after which set fire to the camphor and it will burn, leaving matrix nice and clean. For those just beginning porcelain work, it is a good plan to mix the powder, and bake a small piece about the size of filling, and thus be sure that your shade is right before you bake the inlay. Always match the inlay to tooth moistened with saliva, as the dry tooth differs in color from the wet one. At first it might be better to get shade in this way, and let every layer be of the same shade. Then, with a little experience, we can vary the layers to better advantage.

The zinc oxide is a new idea, and I expect to try it on my next large inlay. With this extra retention, the inlay ought certainly to stand.

I prefer the groove all around body of inlay, with back roughened, to the etching with hydroflouric acid.

If you have trouble in stripping off platinum, dip in water, and it will come off easily. Before cementing in inlay show it to patient, set wet with saliva, because it will *never look better* and first impressions are usually the most lasting.

Always set an inlay with dam on, if possible, secure pressure with wedge or ligature, and leave dam on at least half an hour. Do not remove surplus of cement until dam is removed, when it will loosen easily, with less danger of dislodging inlay. Leave the slight line of cement at joint to wear away, which it will do in a few days. With the inlay in place, tell the patient "that the tooth in drying out under the dam becomes several shades lighter, but in a few hours will have its natural color back again". Also tell him that he will always be able to see the filling, for *he* knows it is there, but others, at conversational range, will *never* see it at all.

Now, gentlemen, there is one more step, and let us not be lacking in that climax of the work that demands the dentist's best skill. Let us charge fees sufficient to enable us to put our best efforts, skill, and ability towards upholding the "porcelain prestige".

Dr. Osborne: I don't think I can say anything that would be worth anything. I am young in the business; have been in it about a year, and one of the main things is getting the color. My experience is that my filling (?) is nearly always lighter than my sample shades. I examine my colors with the teeth, and when the inlay comes out it is much lighter than the sample shades. It is very tedious work. If you have seen a man watch the expert operator, he thinks that it is easy, but if he expects that it is easy he is expecting with the wrong specks. It is not going to displace gold, but it will in my opinion make you a better operator than gold will.

Dr. Alexander: I am somewhat like Dr. Osborne. When this question was going around, I thought of a couple of things, but when I get to my feet I don't know whether anything will come to me or not. I think that one of the most important things in the profession is this matter of inlay work, both of gold and porcelain. The more I know about porcelain work

the more enthusisastic I become. I do not claim to know much about porcelain, nor do I claim to be skilled in its manipulation, but I think every man should take up the porcelain work. One of our members remarked to me, "What is the use of me taking up porcelain, when I have all the gold work I can do". I told him I thought it was only a question of a few years when perhaps there would be no gold work to be done, as, perhaps, porcelain inlay will take its place. At times we are perfectly satisfied with the color of the inlay, but after we place our cement we note a decided change in its color, and as Dr. Fleming remarked, the refraction of the color depends largely upon the thickness of the inlay.

I have been doing more extensive work in recent years in porcelain. Some years ago I thought perhaps the porcelain would never be made strong enough. I have now changed my views. In doing a piece of work of this kind, say upon a central interior, you cut the cutting surface down, also each corner, and leave a square shoulder near the gum margin, and cut well down on the lingual surface upon the cingulum you will get a stronger hold, and I believe that you will get a piece of work that will stand for all ordinary purposes. Of course it will not be as strong as gold, but it will be more artistic and more appreciated by the patient, and it will elevate the profession instead of degrading it, as a great display of gold does.

I will simply say that I want to thank Dr. Fleming in conclusion for the ideas he has advanced. His idea of retaining the cement is orignial, so far as I know, and it appears to me to have merit.

Dr. Turner: I was greatly interested in the very finished and complete paper that was read by Dr. Fleming, and I am very glad to see the young men of our profession taking to the artistics features in repairing teeth. I was very much struck by the remark of a lady in considering the question whether she should have a gold filling or a porcelain filling. It seemed that the dentist was not satisfied that it was necessary to use a porcelain filling in that locality, and he said that he would recommend, as a permanent operation, to put in gold. He

gave as a reason for putting in the gold, its permanency, and she said, "Well, doctor, I would rather be temporarily beautiful than permanently ugly".

Now the question comes up as to the difference between the two materials. We all know that the public has been outraged by the exposure of gold on the front surfaces of the teeth. We know there was a time when there were men who were extravagant in exposing gold on the front teeth. I have known operators to come in and the first instrument they would take hold of would be one that would go into the cavity through the labial surface, and make a gold filling which would greatly disfigure the tooth, and whenever the person should smile there would be exposed bright and shining gold.

Now all that has been changed. The intelligent patient comes to you with one request, and that is "don't let the gold show". They are willing to have it, if it does not show. I do not agree with Dr. Fleming that he can make a porcelain filling in the same time he can a gold filling, unless it is very large, because I believe ordinarily it takes a longer time to make a porcelain filling of medium size than it does to make one of gold, but that is not to be considered if you do better work, and I feel that the time taken ought not to be so seriously considered. I had an argument with one of my neighbors about that very point, and that brings me to a point that I feel ought to be considered, although this neighbor thought I ought to charge the same for a porcelain filling as I did for one of gold. I advanced the idea that it ought to be twice as much for porcelain filling, and I believe you would not be very far wrong in making that charge. Of course it might vary in different cases, of course I don't claim to have had very much experience in porcelain work, although I have done it for the last year or two, and I have tried very hard to see what was in it. My greatest difficulty was in the color. It is very often the case that the cement effects some change in the work, unless you have it very accurately and harmoniously with the teeth and the porcelain inlay.

There is one point in porcelain inlay that all beginners

would probably have some trouble about, and that is the size of the inlay. A small inlay would probably be lighter than a deep one. I found that out from experience. You might match the two as you thought perfectly, but when you put the small one in, it does not match as well as when you have a large surface, the difference is in the light refracted in the teeth.

I believe that whenever a dentist takes up porcelain he confines himself more particularly to those cavities that are most exposed, but as he works on he finds that he can put in small fillings that are not very much exposed.

Another point that should be considered: I have noticed that the inlay should not be of the same color throughout its surface, as you approach the gum, the inlay should be darker, because the teeth are darker, and I adopted the device of coloring the inlay a little at the bottom when I found that a piece of porcelain I selected did not match the work. The same idea has to be adopted in baking the porcelain inlay.

I believe that every dentist in practice now, who complains that there is no demand for it in his practice, will find in a few years that his practice has gone away from him, because it is demanded upon the part of the public. The people are becoming educated upon these subjects, and they will demand it. It is your duty as a dentist to employ all proper materials for making their teeth look natural, and not discharge them with those great blocks of gold in front. I have seen even dentists with gold crowns in front.

Dr. Wheeler: I wish to compliment Dr. Fleming on his admirable paper. The shadow problem will always be a factor in porcelain work if we must continue to use a cement like we are using at present. Porcelain is a translucent substance and so is the tooth, and when we put in an inlay before using the cement we congratulate ourselves on having made a perfect match in color, but when we set it with the cement we have an opaque line that breaks the light rays—hence the shadow. The most acceptable way I have found to offset the shadow is to make the inlay just a trifle lighter in color.

Dr. Dameron: An important point in inlay work, one of the most important points, seems to be that involved in securing the proper retention of the inlay. I have had a very limited experience in inlay work, but I have followed out an idea of Dr. Ames' in some instances. I believe Dr. Ames once advocated the method of baking a little of the cement powder in the first bake of the porcelain. Just mix the cement powder with the porcelain, in equal parts of each, and make a very thin layer in the first place, then bake the inlay on that, and if there is a little excess of cement and porcelain, it can be scraped away until you get down to where it is solid, and then insert it. Do not attempt to stick it to a thoroughly dry surface. I first moisten the surface of the inlay and also of the cavity with the cement liquid, and then with absorbent cotton or bibulous paper, remove the excess of the liquid and insert the inlay. The cement, I think, will stick better to a combination of cement and porcelain than it will to porcelain itself, and I think that it will stick better to the walls of the cavity when it has been cemented with the cement liquid than when it is put inside wall that is dry.

Dr. .....: Dr. Fleming made a very nice point when he said that cavities should be slightly bevelled from the edges toward the center, and using his very beautiful language, "the inlay would settle with uniform thickness to the platinum fold". There is another thing in regard to color. That line is usually left there, when you put in it varies to a certain extent, so that there is a slightly wider line, and you find after that, that the cement has taken on a darker color, you will find that your inlay has a color that more nearly approaches the color of the teeth.

Dr. Alexander: There is one point that has not been brought out in this discussion, and that is the toleration of nature to porcelain. We can put in a porcelain filling, extending up under the gum and the gum will be more healthy than with a gold filling. I don't wish to be considered as on the "advisory board", but I wish to say that to those who live where they can get electricity and gas to take up the porcelain

work. Many people think that we are running to the extremists on this matter of porcelain. Many persons who heard Dr. Gorman's paper would say that he is demented, and would say that Dr. Spurgeon is timorous on account of his extreme conservatism. He is making errors in orthodontia today; he is making the mistakes of his life, and he will regret it when he knows more about the subject—the further he will then get away from that practice of extracting teeth. I know that, from my own experience, hence I feel at liberty to criticise. I give Dr. Gorman credit for what he has done in removing from my eyes the mote on the subject of orthodontia. It was due to his enthusiasm that I have given the subject more attention.

The President: What do you think of the Jenkins furnace?

Dr. Alexander: I think it is a pretty good furnace.

Dr. A. H. Fleming: In speaking of the durability of porcelain as against gold—it has not had the test. I have found an Egyptian mummy with gold fillings, but I have never yet found one with porcelain fillings.

Dr. Wheeler then read a paper on "Operative Dentistry".

THE CONTOUR FILLING AND PRESERVATION OF THE INTERDENTAL SPACE

By J. H. Wheeler, D. D. S., Greensboro, N. C.

When the Creator made man he made a being perfect in all his organisms, teeth not excepted, and if man had obeyed the laws of nature, the world would have never known the necessity for dentists, but because of the fact that these laws have been transgressed, man's teeth have suffered in shape and in structure.

I will not take time here to go into the "reasons why" for this deterioration, as I conceive that the discussion of this subject belongs more properly to a paper on orthodontia.

Taking the American Indian as a type, we find teeth that are nearly perfect, and I believe this is the case with all aboriginal people. Let's consider for a moment the shape and position of these teeth.

First, we find a maxilla that is large enough to accommodate the full complement of sixteen teeth without crowding.

Second, we find teeth that are bell-shaped—in contact at or very near the cutting or grinding surface, and decreasing in size as the

gingiva is approached, consequently, leaving a space between each adjoining tooth.

Just as there was a reason for placing over the tooth a dense covering composed of 97 per cent. inorganic matter, so there was a reason for leaving what we term the inter-proximal or inter-dental space, and it is for the preservation of this space that I argue today. I take it for granted that we all recognize the fact that the teeth have a tendency to move forward when the resistance of contact is removed.

Of course, I am aware that there are exceptions to all rules—that we sometimes find a tooth moving posteriorly, but this is exception and not the rule.

The question that now presents itself is shall we build our fillings flush with the walls, allowing the teeth after more or less time to move together, bringing the point of contact at or under the gingival margin and leaving a more or less aggragravated V shaped space at the cutting or grinding surface for food to pack in and irritate and possibly cause marginal decay.

True, our fathers inserted fillings of this type that have been in for years and years, but won't the future generations say the same thing of our contour work?

Who can say but that the contour filling of today will be preserving the teeth forty years hence?

It takes a better dentist to do a good contour restoration: the very fact of the increased leverage and the accumulated force makes necessary an anchorage that will not give way.

We can not depend on undercuts in buccal, labial, and lingual walls, but must of necessity cut to sound structure and anchor in the dentine by means of a "step", and this has the advantage of forcing us to cut out the involved fissure in the bicuspids and molars, thereby anticipating further decay.

Dentistry has made wonderful progress in the last quarter of a century and has now reached the point where it is branching off into specialties.

The day is coming when patients will be referred to Dr. A. for correction of irregularities, to Dr. B. for bridge-work, to Dr. C. for operative work, etc.

And because of the fact that we have devoted our time and talents to a special phase of this great work, the patients will get even better service than we are giving them now.

Just as the great theory of "extension for prevention" which raised such a howl a few years ago has come to be an almost universally-accepted law, so the "restoration of contour and the preservation of the interdental space" has passed the experimental stage and has been proven to be the ideal in permanent restoration.

This work demands more of both patient and operator.

We must have space in which to work, and to get it requires the use of cotton, rubber, or some other separating material which takes more or less time, or we must use the mechanical separator which is rather painful of application, but I can not conceive that I have done my duty unless I put forth my best efforts.

In the use of plastics, where a very thin steel matrix is used, we have no need for separation because the space left by the matrix is almost nothing and can be obliterated by burnishing.

The dawn of the millennium from a dental point of view will be when we shall be able to prevent the formation of cavities in the teeth rather than the stopping of their ravages, but judging from the present conditions, this millennium is quite a distance in the "dim and dusky future," so it behooves us to prevent all we can and to restore by artificial means those that we can not prevent and to so make the restoration as to reduce to the minimum the chances for a recurrence of the trouble, and in my humble judgment this is best accomplished by the contour filling and preservation of the interdental space.

DISCUSSION

Dr. Betts: I have been very much struck by the forcefulness of the paper and the treatment of the subject. To my way of thinking he has covered the ground very well. One of the greatest bugbears in dentistry is the recurrent decay at the gingival margin. Some times we insert a filling that seems to be perfect, and are mortified in a short time by being informed that the filling is out. That happens in the best of regulated offices and by the best operators. But the thing that we fear most is recurrent decay, and the finest piece of precaution is to know where your danger comes from and fortify against it.

Dr. Hilliard: You teach your patients to use floss silk and he will do it. The patient won't use the floss silk after the teeth are filled any more than he would before the filling was done, and in a "V" shaped filling you will find that if the decay has gone down to the gum, they don't last, and in those cases where they have lasted for a number of years is where the teeth have decayed very slightly, and in that case they had solid enamel.

Dr. Humphrey: It has been my experience that in the cases of the most perfect interdental spacing, the most perfect shaped teeth are those that are "pear" shaped. Of course where you find these pear-shaped teeth you find those interdental spaces, and it seems that in those cases I have found a greater amount of "pyorrhea" than in teeth of other shape than the pear shape, and it is in the case of the most perfect pear-shaped teeth that you find the worst condition of "pyorrhea." Is it because the food is allowed to get up in those spaces and remain there?

Dr. McConnell: I will not enter on a discussion of the pathology of pyorrhea, but I will speak of interdental space. The point that I was going to make is that in amalgam work. I see some work where the alloy has been taken up among the gums, and whoever put it in thought they had put it in perfectly, and when the patient came to me, I found that they had a lump of amalgam on the margin of the gum. I find that you get a great deal of satisfaction from the use of a good matrix.

Dr. Horton: In answer to the question asked by Dr. Humphrey, you will find that you are more apt to find pyorrhea in the mouths of people who have pear-shaped teeth, and that is the result of a mechanical operation; that the food has a tendency to be packed towards the gum, and therefore it will irritate the gum.

Dr. Gorman: Dr. Wheeler was very modest about his "little paper", as he called it. I think that his paper is one of the most valuable papers in the general practice of dentistry, and it is something that we all ought to pay a great deal of attention to.

Dr. Horton: I think perhaps that if we are forced to observe the interproximate space, that the tendency is to make the point of contact of those surfaces too great. I believe if we make the point as small as possible our purpose would be more nearly attained. I think that if you would fill up the gum margin, first fill it not too full, and fill from the approximate

space and then finish out the filling. It would be better than if you tried to fill before you finally finished.

Dr. Chambers: I want to express my appreciation of Dr. Wheeler's paper, dealing with the topic that he has dealt with, for it is one which interests all of us, and one to which we should give the most deliberate and the most earnest thought, and that is, to preserve the interdental spaces. I don't want to say anything about the contact point, but to protect that gum margin for the interdental space, it is absolutely necessary for the teeth to knuckle. If that space is preserved according to nature—and that is all that we can do, is to lend nature assistance, and if we will do that the interdental space will take care of itself.

Dr. J. M. Fleming then moved that as Dr. Ihrie was not present that his paper be read by title, for the lack of time, and at Dr. Ihrie's request.

Mr. President and Gentlemen of the Association:—

In the presence of so many gentlemen skilled in their profession and eminent in its practice, I feel some reluctancy and much diffidence in performing the duty assigned to me by your committee. But recognizing that a duty performed, however little it may serve to edify my hearers, must be of value to me, I approach my task with hope that I shall receive your charity for my shortcomings and your approbation of what I may say aright, to cheer me on to a better and higher performance in the future.

Premising that the sound part of a partially diseased tooth is to be saved upon the proper preparation of the receptacle of whatever filling is to be used, depends in much the greater part the value of the after work. I have therefore selected the preparation of the cavity as my theme, and to it invite your attention for a few minutes.

The first step to be made preparatory for preparing a cavity, if such is not already made by the position or situation of the cavity to be prepared, is to separate teeth so the operator can have free access, without this the preparation of a cavity, in most cases will prove a failure, hence the operator gets the credit for an inferior filling, matters not how well he has manipulated same. It stands to reason there was never any structure erected without a foundation; if expected to be durable, the foundation must necessarily be substantial, or a collapse and ruin we are assured. Too much stress can not easily

be laid upon the importance of the thorough cleansing in the preparation of a cavity before the introduction of a filling, either for temporary or permanent use, in the child's as well as permanent teeth.

It would not become the writer to criticise his brother practitioner in order to show the importance of the thorough cleansing of a cavity of its various substances, but will speak of his own unfortunate mistakes as a new man in the field in the practice of dentistry, If it were only once on the return of patients to my office for the purpose of having more work done that the importance of cleaning a cavity had been demonstrated, I could speak with much less hesitancy. There are few of us who have called our patients' attention to the fact that the dark hue showing around and through the enamel wall of gold filling in their front teeth was due to an improperly cleansed cavity, but we know how much better we could feel had we been a little more thorough in discharging our duty to the patient. It seems impossible to hide a neglect or oversight of this nature, for when the slightest decay remains under a filling it will not need advertising, for this is one mode of advertising that we dentists are sometimes guilty of, regardless of the society opposing such, more especially with the young practitioner who hasn't had time to see his own shortcomings. It matters not how you manipulate your filling material, the cavity not being thoroughly cleansed means sooner or later a lost filling.

The character of consistency of the carious structure or substance of course has much to do with the method and means employed for its removal. If it be of the semi-elastic or leathery variety so often found in the teeth of young persons, it can be more easily removed by means of spoon-shaped or round-bladed excavators, these being oval or circular in edge outline, free from marginal angles will lift and separate the layers without danger of injuring the underlying dentine and with the infliction of a minimum amount of pain.

In the dark, hard variety of caries, as also in the white, chalky variety, the different forms of burs and the execavators will be found best suited for the purpose.

In the removal of caries care should be taken to inflict as little pain upon the patient as possible; to this end in cavities of considerable extent, after enlarging orifice is sufficiently done, a sweeping cut with an excavator around the cavity just below the enamel line thus freeing the decayed portion at that point. Then the carious portion of the dentine should be removed by placing the blade of an excavator near the bottom of cavity and make cuts towards the orifice, a cut made in this manner produces less pain to your patient, being in an opposite direction from pulp and most tender portion of the cavity, and is less liable to expose or wound the pulp.

When burs are employed for the removal of caries, it is safest to use only such as are more or less rounded—such as the round or oval forms—for they more nearly conform to the natural outline of the cavity, leaving no angular grooves in the dentine, difficult or impossible to perfectly fill. In deep cavities the variety of burs known as the inverted cone and wheel, while very useful for opening cavities, should not be used for the removal of caries, because of the irregular surface their angles produce.

Rapidly revolving burs attached to engine handpiece are very apt to cause pain by the development of frictional heat; this can be largely prevented by lifting the burs at intervals and allowing it to run free for a moment, this prevents overheating the tooth and avoids unnecessary pain.

Thorough excavation of a cavity, and the removal of all carious dentine is absolutely essential to success. To allow any portion of it to remain and trust to the employment of germicides for its sterilization is running the risk of failure, for we can never be sure of disinfection. Besides there isn't any good reason for allowing carious dentine to remain. Carelessness and laziness are reasons that could be given, and neither are very creditable to the practitioner.

In nearly all cavities we find two varieties of altered tissue, that nearest the surface is a mass of thoroughly disorganized, and usually decomposed matter filled with microorganisms, beneath this is a layer from which the calcium salts have been removed by the acid solvent but which still retains its original form and vitality. This layer of decalcified dentine may be allowed to remain, especially in the bottom of the cavity, and it serves to protect the subjacent tissue from thermal shocks. By some of our greatest authors of text books it is claimed that this second layer when left in the bottom of the cavities will in the great majority of cases be again converted into normal dentine by the redisposition of calcium salts, but I notice they give as a precautionary measure to be treated to an application of some germicide, such as carbolic acid, mercury, bichloride, etc.

Another variety of caries we have to contend with that should not be overlooked, is the form designated as the self-limited. In this case, through some unexplained change of conditions the progress of caries has been checked and the layer of decalcified dentine restored to its previous normal conditions. When this has taken place the restored tissue is usually of a darker color than dentine ordinarily is, owing to this discoloration is likely to be taken for carious dentine and removed. In such cases this discolored dentine should not be removed, except when it will show through enamel walls of cavity, after being filled preventing cavity from having that clear, clean appearance which it should possess.

It is the custom with some practitioners to prepare a cavity dry, because in this way the operation is more rapid and usually less painful. In this manner the operation of opening, cleansing and shaping the cavity is performed without the presence of moisture. By repeated applications of warm air at intervals during the operation the pain experienced during this operation is greatly diminished by lessening the power of sensation in dentine; some practitioners prepare the cavity roughly, without the dam, to avoid the unpleasantness to patient for so long a time, and after preparing cavity in this manner, apply dam and finish the operation. A cavity can be prepared more satisfactorily under cover of a dam than when moisture is present—the defects of the preparation are more plainly observed after the moisture has been excluded. Shaping the cavity is one of the most important of all operations associated with the stopping of a cavity, for according as it is properly or improperly performed will success or failure result. Too much stress can not be laid upon its importance nor too great care exercised in its accomplishment. In as much as a filling is retained in place mechanically it follows that the cavity must be of such shape as to favor retention; to this end it should be larger within, at least at certain points, than at its orifice. An exception to this rule lies in such cavities as are of smaller diameter and are of more than moderate depth. In cavities of this character, parallel walls will suffice because lateral surface contact is so great in proportion to the mass to be held in place that displacement could not occur. In larger cavities of moderate depth the reverse is the case, and they will require the assistance of internal enlargement for the retention of the filling. Dr. Kirk says to govern each of the conditions two rules may be formulated.

1st. When the depth of a cavity is greater than the diameter of the orifice, parallel lateral retention walls will prove retentive.

2nd. When the diameter of the orifice is greater than the depth of the cavity, the latter will have to be somewhat enlarged internally to retain the filling.

Examples of the first class are found in the narrow but rather deep cavities which occur on the lingual surface of the upper incisors near the cervix in the pit cavities on the buccal surface of molars; and in the small cavities found on either side of the enamel ridge on the occlusal surface of the lower first bicuspids.

Examples of the second class are found in numberless places on any of the crown surfaces. In some cases cavities will be found of such form that by removing the decay will leave them almost retentive. It may be found necessary to cut away more or less sound tissue to give them the required form, but too much sound tissue should not be removed nor the pulp be too nearly approached.

Too great enlargement tends to weaken the cavity walls and should be guarded against; and in shaping a cavity internally instruments should be used that will leave the surface free from angles because the filling material can not be perfectly adapted to them. If grooves are required they should not be made too deep, nor too near the enamel, for fear of weakening the walls. The permanency of a filling largely depends upon the strength of enamel walls and their proper preparation. It is also best to cut away all enamel walls that are not supported by dentine.

While carbolic acid is of little efficiency in controling acute sensitivity, it is of benefit in moderating that condition. The efficiency of this substance may be increased by adding to it a proportion of one-third of oil of cloves, the latter having some anaesthetic influence. When other more active means are not admissible and the effect is not immediately satisfactory a better result is produced by placing this combination in the cavity and sealing it with some temporary filling material until a subsequent visit. Carbolic Acid having little affinity for water the obtundent effect is facilitated in drying cavity by means of hot air blasts. Carbolic Acid is also serviceable combined with tanic acid when sealed in cavity; zinc chloride is another agent often used for the conditions under consideration, its action being explained by the double power of its affinity for water and its extreme coagulating effects on albumin. The effect of this agent is as we know of a limited depth. In some teeth of patients who have been in my care, the pain produced by this remedy is claimed by them to be more objectionable than the pain experienced from excavating.

Having said considerable about the preparation of a cavity in a general way, it now seems proper that we should take a more definite step in this undertaking, and first endeavor to prepare a simple cavity, say on the occlusal surface of a bicuspid, taking for granted this cavity, as is very common, is in the sulcus of fissure of the bicuspid, which renders it very accessible and in full view, enabling the operator to see every part of the cavity and affording him plenty of room in which to operate. These cavities present the advantage of greater accessibility, but none of them are difficult to prepare and fill except under unusual conditions.

Usually this fissure is the first part of a bicuspid crown to become affected by caries. Often when this cavity is first noticed it presents itself as only a black line following the fissure between the cusps into which only the point of an explorer will penetrate; at a later stage the cavity is more fully defined by the greater progress of caries and the crumbling of the walls of its orifice. In the first stage the cavity is more readily and comfortably opened by means of a

tapering fissure bur; opening the fissure quite freely after this is completed, the decay may be removed and the cavity shaped by a suitable size round bur. As the decay usually progresses further in the region of the terminous of the cavity than in the space between them, the cavity when fully formed will be oblong in shape and contracted in center. In preparing the cavity no more sound tooth-substance should be sacrificed than is absolutely necessary but every portion of decay should be thoroughly removed and particular attention be given to opening up the minor fissures. When completed the cavity should be slightly larger within than without, the margins should present no angles, and the marginal edges should be slightly bevelled outwardly. Bicuspid cavities of this character vary in size according to extent of decay, but the essential features in each case are very similar. The lower bicuspids differ normally from all others of its kind in having no fissure between the cusps; instead of the two cusps being separated by a sulcus they are united by a ridge of enamel. While speaking of the normal difference of the upper and lower bicuspids, if allowed, I will take the privilege of calling attention to the fact that in form these so-called lower bicupids are not truly bicuspids, for the first is unicuspid and the second is tricuspid in the pure typal forms, but are termed bicuspids on account of their position as compared with the upper bicuspids, which are typically bicuspid.

The occlusal surface of an upper first or second molar presents two points liable to decay, one is a pit formed by the junction of two small fissures near the mesial margin, and the other is a fissure which runs between the disto-buscal, disto-lingual, and mesio-lingual cusps.

When limited in extent, they should be opened in the same manner as a bicuspid fissure cavity, but when larger they may be opened by means of a chisel followed by a suitable bur. In these, as in all cavities in sulci, the fissures must be followed and opened up to their extremest limits in order to insure success, while the margins and marginal edges must be so formed as to be strong, smooth and beveled. It is not an unfrequent thing to find two of these occlusal cavities joined underneath, while near the surface they are separated by a ridge of enamel and dentine, in such cases the ridge should be cut away and the two cavities cut into a single large one; there are two reasons why this ridge we speak of should not be allowed to remain, first, it may be fractured during the operation of filling, or by force of mastication.

Dr. A. E. Frazier then read his paper on "Dental Education".

DENTAL EDUCATION

The most enlightened meaning of my subject, as applied to this society, can be best expressed in these words: Our professional obligations.

In this day of "enlightened selfishness" the moment we are taught anything we become under obligations to our fellow man, to teach it to others, and the professional man that has not caught this spirit is indeed living on the husks and is missing all the real sweetness of professional life.

Our duty to the young men contemplating the study of dentistry can hardly be overestimated, for this is the fountain that may contaminate the whole stream. In this commercial age when so many are worshipping the god of gold, our duty to them and to our profession, demands that we impress on them that a profession means more than dollars, and measured by dollars can never be a success, and that many of their best efforts can never be fully rewarded by a fee.

The time has come for a four-year course in a high school or its equivalent to be required for matriculation in our dental colleges. It is indeed worse than folly to build a fine superstructure on a narrow and faulty foundation. With a broad and liberal foundation and three years' college training in some well-equipped college, any young man should readily pass our examining boards, and then we will not have any more dental parlors, for they bud and grow only in shallow soil.

I wish to speak next of our relations or obligations to each other. To fully appreciate our modern Dental Society and its many benefits, we should take a retrospective view of our profession and see how it has grown from a mere trade practiced independently and often secretly, to a learned profession, honored by the most esthetic minds and the best blood of the age, fostered and fed by an appreciative public, with the happiness, progress, and developments of posterity, measured by its own. We as a profession will continue to grow in respect and usefulness just in proportion as we merit or demerit it. The value that we put on our profession and the esteem we hold for each other will govern the value and esteem that the world will have for us.

Dentistry has developed along the lines of causation and restoration. The study of etiology, through which we hope for prophylaxis and immunity, is the problem of our profession today.

Instrumental restoration has caught and held the public fancy almost to the exclusion of preventive treatment. Thus we plod along,

patching, or pulling, and substituting, satisfied in our mechanic's realm, when we might stand in nature's galleries directing the preservation of her handiwork. With constant and intelligent care, few teeth will decay, and still fewer need be lost; therefore, let us impress upon every one of our patients the importance of oral hygiene. Our duty and obligation to the masses is growing every year and today every paper is filled with the relation of the public to the men dealing with them, and the duty of the corporations to the people.

Professionally speaking, "we are our brother's keeper", and to adopt it in all our dealings with the public, will be doing a great deal for dental education.

Action should be taken by this Society to the effect that a treatise on oral hygiene and the eruptions of the teeth shall, by law, be placed in every primary school in the State, and lectures should be delivered in our local schools on the fundamental principles of these subjects.

Then and not until then, will we get the appreciation and inspiration from an intelligent public that we so often feel the need of.

The time has come when we must step out on a broader foundation. We are living in a democratic age and the incalculable benefits of progressive dentistry are for the masses as well as for the classes.

We can not grow from the top down, as it were, but from the bottom upward, and the great educational growth in our State and the ever-ready press furnish the levers whereby we may reach the masses.

Dental education should become a household term; of course I do not mean that we should lower our standards as a profession, but I do mean that we must educate and develop the people up to our standards.

We shall go down in history either as a narrow, selfish, and self-exalted lot of men, or as a progressive profession who knew their duty and did it.

I appeal to our State Society because I do not believe that we should depend on our National organizations for things that we can accomplish in our local Societies. In conclusion I wish to express my firm belief in a glorious future for dentistry, if we will only with Japanese courage do our full duty.

DISCUSSION

Dr. Tucker: I have not seen the paper but I have heard it read. I am not prepared to discuss it. I want to commend the essary. It is a well-written paper, and well read, and I

hope that it will be fully discussed by the members who are more competent to discuss it than I am.

Dr. Turner: This is a subject in which, it seems to me, everybody should be interested. The essayist has started out with a statement which I think should be somewhat elaborated —a proposition to educate the public. Just how this is to be done there is a great difference of opinion. I do not believe in the ordinary plan as stated by speakers and writers upon this subject—that literature upon that subject is effective, and that our opportunities for this kind of education are somewhat limited, except at the chair. The way to educate the people is to give them something that is definitely comfortable and effective.

Dr. Turner spoke at length upon the subject of dental education and was followed in the discussion by Dr. Jones and Dr. Frazier.

Dr. Jones then read his paper on "Some Important Points in Dental Practice".

SOME IMPORTANT POINTS IN DENTAL PRACTICE

Success or failure in our profession depends upon the observance of some things, though apparently small and insignificant. Much has been said and many pages written on the best method of doing this thing or that, and while we may never agree as to the minute details in any line of work or treatment, yet we must recognize that without thoroughness, and a conscientious endeavor to do well, whatever we undertake, we can not expect to achieve a moderate success, much less to reach the topmost round of the ladder. This is an age of close competition, and with the rapid increase in the number of dentists, which is much greater than the normal increase of population, the successful dentist must be qualified as well as careful and painstaking. Your attention and kindly criticism is asked for while I mention a few things that seem to me important in the practice of our profession.

"Examine all things, hold fast that which is good", must be applied to dentistry as well as to everything else in life. Some of us have been in practice long enough to know that very many methods and inventions that were considered indispensable when brought before the profession have failed to stand the test of time, and proven to be worthless, and the places, yes the offices, that once knew them, will know them no more forever. Each year with the meeting of our

dental conventions we witness the rise and fall of some fad in our profession, and yet our progress has been ever upward and onward. The difficulties we have met and the obstacles we have overcome have but renewed our strength and prepared us for greater conquests in the future. No profession has made greater progress in the last thirty years than ours. This is noticeable in every department of our work. Teeth that were formerly sacrificed without an effort for their salvation are now retained and in many cases give service for years. Roots that would have been consigned to the tender mercies of the extracting forceps are with proper treatment saved, and in some cases used as abutments for serviceable bridges. But we must not forget the good work that was done in early years by many operators. Some fillings can now be found that have given valuable service for thirty-five and perhaps forty years. One of the first and most important steps in filling teeth is the preparation of the cavity. If this is not well done all that follows will amount to nothing. Examine carefully the cervical edge, for just here is the cause of many of our failures. The soft dentine or enamel should be carefully removed until sound tissue is reached. Anything short of this will be a failure. In accomplishing this object the rubber dam is of inestimable value. In fact you have only to prepare the cavity without the rubber, and then put it on and you will find your work of preparation was a failure. How can we expect a filling to last built upon defective tooth structure? As well expect a house to stand that has its foundation in the sand. Now with a good foundation and a well formed cavity we are ready for the filling. If of gold, careful and thorough work is again necessary here. No matter what form of gold, whether cohesive or non-cohesive, there must be a thorough adaptation to the walls of the cavity, at the margins particularly, with cohesive gold, each piece, or cylinder must be made to cohere, if non-cohesive the cylinders or tape must be so closely adapted that your filling will be solid and as near perfection as you can get it. Every part of the work should be well done from start to finish. Never turn off work till you have done your best.

In filling with amalgam the same care is necessary, except that it is not advisable to make retaining points. The mix of amalgam should be just right, not too much mercury, and each piece carefully condensed or pressed against the walls of the cavity, and here again great care should be used to work the amalgam against the outer edges of the cavity at the cervical edge, for this is the point of greatest danger and poor work will in a short time be followed by decay and perhaps exposure of the nerve.

Never allow an amalgam filling to leave your hands without a perfect finish. If it is not possible at that sitting have the patient come

again and finish as carefully as you would a gold filling. If this is done you will be surprised to see how much longer your fillings will last. Who that has been in practice for only a few years has not seen amalgam fillings overhanging the edges of the cavity and decay progressing underneath? Now don't congratulate yourself that you don't do this work, that your neighbor is the man. Most of us fail to take the pains and care in amalgam work that we do in gold, and yet one is just as important as the other. Much of this slipshod way of doing work comes from working too rapidly. We are too anxious to supplement our low fees with a large number of fillings each day. It will surely tell in the long run not so much in an increase of money as in a decrease of patients. If there is one lesson that needs to be impressed on all operators, particularly on beginners, it is that of doing well whatever you undertake. Never stop till you are through; no matter how much work may be waiting. If you can't finish all that day, do temporary work and finish at another time. Now as to cement and gutta percha fillings there are some points that need special emphasis. Don't expect a perfect filling to be made without the moisture is excluded from the cavity, and nothing better for that has been found than the rubber dam. Don't think a cement filling will last as well at the cervical edge of a cavity as one made of gutta percha. If you want the cement in the body of the filling and towards the cutting edge, start with gutta percha, or rather combine the fillings. Don't expect gutta percha to make as good foundation for metal fillings as cement. It will very likely change and your filling will not stand. Don't expect either cement or gutta percha to last as long as gold or amalgam. In some cases they may, in many they will not. Don't put either one in the cavity of a tooth whose pulp is nearly exposed without first using a non-conductor. Don't use gold in children's teeth until the sixteenth or eighteenth year. Use gutta percha if the cavity walls are good, if not, use cement, except in bicuspids or molars where it may with advantage be combined with amalgam. Oxyphosphate of copper can often be used to advantage in such cases, but more particularly in the temporary teeth. Don't attempt to put up a set of teeth without first getting a good impression, and nothing better than plaster for taking an accurate impression has been found. Modelling compound if used takes a more accurate impression when softened by dry heat. Even after using hot water it should be passed over the flame of an alcohol lamp or gas heater. Never promise the patient that a temporary set of teeth will last for years, advise them to change for a permanent set in a reasonable time or the mouth will be injured. Don't fail to select the teeth that are suitable and becoming to your patient. A mistake in color or size is very noticeable and will materially detract from the appearance. Too much care can not

be taken in the articulation or occlusion of your teeth. When only a few teeth touch, there can not be satisfactory chewing or mastication of the food. Then it follows there will be imperfect insalivation and digestion. Never extract teeth that can be made useful by treating and filling. Do not use a gold crown when one of porcelain will do as well, and look a great deal better.

What I have written is neither new nor original, but commonplace things that come under our observation every day, but I shall be fully satisfied if they provoke profitable discussion, and incite some one to do more thorough work.

DISCUSSION

Dr. Hilliard: I never heard a better paper on the subject. Dr. Jones says that he does not advise the filling of front teeth with gold under 16 years, but there are some exceptions. I have filled some for boys twelve years of age that have lasted, but of course, as a general rule, when gold is put in close proximity to the nerve it is killed.

Dr. Harper: That practical paper is calculated to put us all to thinking. Every man has his own methods. Perhaps in a given piece of work half a dozen dentists might be selected and their methods would be different in each instance, but the work might be all done so that it was perfect work.

I was delighted at the Dr.'s suggestion on "fads." I don't believe that the members of the North Carolina Dental Society are much given to "fads." We read though, in the journals, a lot of things that read like and look like "fads," and when we get hold of a thing that looks like a "fad" it is important that we carefully notice and see that they are not "fads." Sometimes those which look like "fads" prove later not to be "fads," but something of practical use.

Take Orthodontia, take anything in fact, and when it is first started, those who are enthusiastic along that line, and some of us who do not look deep and see the trend of things, think they are fads. But those enthusiasts who are practicing these fads may work out and develop something that will stand in the profession. Yet all of us who are given to this are liable to become "fadists," and hence the warning that Dr. Jones has given us.

In regard to cement filling, I suppose that many of you

have used cement filling and been very much delighted with it; but the filling that I have in mind is that when that cement filling is put in perhaps the gum is extremely sensitive, and where the patient could hardly bear the touch of the instrument, we can not pull with impunity. And we notice at times some very frail walls where we would not dare to condense gold against them, we find in the course of time that these walls have become hard and we can use the mallet. As Dr. Osborne said the other night, "I believe I have said enough."

Dr. Osborne: I infer from what Dr. Jones said, that there were men in the Society against fads. But there is one thing that I want to touch upon and that is conservatism, but there is such a thing as being too conservative.

Dr. Jones: With the gentleman's permission, my paper is not one on conservatism. I will say this, that I agree with him in the matter of caring for children's teeth with cement or anything besides gold, but still there is pretty good authority that young children's teeth can be filled with gold. Otto Lengui says that he fills all children's teeth with gold.

Dr. Turner: I want to say in regard to Dr. Jones' paper that everything he said, to my mind, simply proves things that cannot be disputed. I would like to discuss some points with him on the paper, but I have to go up to the hotel on an important engagement. But I wish to state in regard to filling children's teeth under sixteen years of age with gold—I believe there is too much cement and amalgam, and I am very glad to know of one young man who uses very little cement or amalgam. But the dentist does not take time and trouble to explain these matters to his patients.

Dr. Betts, in the absence of Dr. J. N. Johnson, read the latter's paper entitled, "A Few Practical Points in the Treatment of Alveola Pyorrhea."

A FEW PRACTICAL POINTS IN THE TREATMENT OF ALVEOLA PYORRHOEA

By J. N. Johnson

Mr. President, Ladies and Gentlemen of the North Carolina Dental Association, my purpose in reading a paper on the subject, Alveola Pyorrhoea, is in a measure to correct an evil that has been making

itself felt to the Dental profession and laity alike, since the organization of the first Dental College in 1837 and to proclaim that today with 56 dental colleges located in the larger cities throughout the U. S. with a curriculum superior to that of any European country, we have made, comparatively speaking, little progress in the treatment of Pyorrhoea Alveolaris, a disease destroying a greater number of teeth and causing more inconvenience to the laity than any affliction to which the mouth is heir.

Like the majority of dentists, when I began practice, owing to a want of proper instruction and a deficiency in the text-books pertaining to the treatment of Pyorrhoea, I regarded its treatment a difficult task, and following my teaching, questioned the possibility of a cure, therefore when a case presented itself in practice, I did but little more than remove the deposit on roots as was easily accessible to a sharp scaler, and prescribe a mouth wash as a means towards temporary relief.

For several years past, I have witnessed the gratifying results of Dr. B. F. Arrington's method of treating Alveola Pyorrhoea, and I am now convinced that the disease can be successfully treated and a cure effected in a comparatively short time. As Dr. Arrington has stated, I believe the majority of dentists can treat the disease successfully if they will follow the simple line of treatment he advises, i. e. "The thorough removal of deposits with smooth scalers, then assist nature gently and keep a cleanly mouth to prevent like causes producing like effects". Dr. Arrington contends that the disease is local, without any systemic features, and requires for cure only local treatment, and that the first symptoms is a perceptible disturbance of gum tissue at the gingival margin, the effect of putrefying impacted substances, of months and years standing without interference or effort at removal, in many cases, until the soft tissues soften, weaken and lose attachment to necks of teeth; then the pericemental membrame becomes exposed and takes on inflammation, deposits are formed and if left alone destroy the membrane, alveola walls and surrounding tissue, resulting finally in loss of the teeth. Prevent such impactions around the neck and interpoximal surfaces of the teeth, commencing with early childhood and there will be no Alveola Pyorrhea to treat or write about. Some of the best dentists in the U. S. today, are disposing of Pyorrhoea through the medium of the forcep followed by an artificial denture. This may be an easier method but is not in my opinion a conscientious performance of the duty we owe our patients. What the dentist needs, is to get his hook into a tangible method of dealing with the disease, and keeping everlastingly at it until he accomplishes something for his patient and incidentally for himself.

Such extreme methods in the treatment of Alveola Pyorrhoea as advocated by prominent specialists on the disease, such as the application of the X-ray, compressed air, solvents, hot baths, devitilization, cutting off of the natural teeth and substituting artificial crowns, the packing of pockets with quinine after the deposits have been removed, sending patients to mountains, and seashore, the administering of internal remedies, such as a dose of epsom salts daily for three weeks, and iodide of potassa and sarsaparilla three times daily during the same time, is to be regretted, as in my opinion its major effect is to confuse and intimidate members of the profession who do not differentiate between a far fetched theory and a practical common sense application, both as to its surgical and medicinal treatment.

In condemning the many and varied ways of treating Alveola Pyorrhoea, I am not putting myself on record as saying that dentists as a body should not be familiar with Metobolism, Anabolic and Katabolic, on the contrary I hold that we should be conversant with the interstitial changes as they go on in the cellular tissue of the body, especially the oral cavity. But I do wish to insist and impress the idea that an exhaustive medicinal treatment is entirely unnecessary, since the disease is arrested with the removal of deposit, its cure then depending upon cleanliness and cleanliness only.

The major portion of the treatment is instrumentation by the Arrington method of smooth edge scaler, and its success depends on the prehension of touch and the thorough removal of the deposit. The therapy can be confined to a few drugs to relieve inflammation after the deposit has been removed, and it is of more importance to pay strict attention to the prophylaxis of the case in hand than to devote days and weeks to studying the predisposing tendencies of the patient to disease, systemic or local. The prophylactic treatment consists in frequent and vigorous use of a bristle brush trimmed or made so that it will penetrate between the teeth, and the mouth should be full of water so that all inspissated fermenting food stuff adhering to the teeth and under the free margins of gum, may be flooded out. This does away with a constant irritant and permits new and healthy granulations to form from the bottom of the pockets in harmony with the atrophying of the hypertrophied condition of the gums. Massage should also be considered, and this should be from the apex toward the cutting edge of teeth.

As an advocate of the smooth scaler for removing deposit, let us compare the action of a smooth edge Arrington scaler in connection with the microscopic anatomy of tooth structure, and the actions of a sharp edge instrument upon the same.

When a tooth is in a normal healthy condition, its dentine is

never exposed—being covered above and below the free margin of the gum by the enamel, and from this juncture its cementum is contiguous with dentine formation of the root. The dentine is made up of fine tubes, dental tubuli, each tube originating in a goblet shaped or open mouth upon the surface of the pulp, and is directed outward toward the periphery of the dentine approaching upon the cementum and enamel. The cementum surrounds the dentine and is made up of haversian canals, Lacunae and Canaliculi.

The Canaliculi and Lacunae are distributed lengthwise around the root in proximity with the dentine, and joining with the terminal branches of the dental tubuli, form a connection from the periphery of cementum to the surface of pulp canal. This connection from the outer surface of the tooth to the inner surface of the pulp canal may be incident to traumatic changes during certain stages of the disease, (Alveola Pyorrhoea) and may perhaps be one of the reasons for pulp extirpation. If so, it has not yet been advocated. We know, however, in Riggs disease, the deposit begins just under the free margin of the gum, and continues towards the apex of the tooth, a hard, dense calculary mass, not soluble in any drug that can be applied in the mouth without destroying the soft tissues. This serumal deposit that destroys the peridental membrame and contiguous tissues is the seat of our trouble and the cure of Pyorrhea hinges on the removal thereof. In the surgical treatment, the sharp scaler applied in any position and pulled on at an angle invariably cuts into the tooth structure, rendering the removal of the deposit more difficult and aiding, instead of correcting, a pathological condition by abraiding or cutting into the surface of the cementum, opening up of the lacunae, canaliculi and haversian canals. This is followed by a serous exudation, the result of which is a harder variety of deposit, increased sensitiveness and a lower order of life from the periphery of cementum through its connection to the pulp canals.

A smooth scaler applied in any position pulled on at an angle, meeting with only the resistence of the calculary deposit, slips it off easily and at the same time acts as a burnisher, closing the ports and leaving a polished surface behind. The injury to connective soft tissue is thus reduced to a minimum.

J. N. JOHNSON,
Goldsboro, N. C.

DISCUSSION

Dr. Fleming: I received a letter sometime ago from Dr. Johnson in which I was requested to open the discussion of this paper, and I told him I would and to send me the paper at

once, and I have only seen the paper from the hand of the Secretary since I have been here, and I hardly feel competent to discuss the matter now, but I want to go on record as heartily in favor of Dr. Johnson's method of treating Pyorrhea. In Dr. Johnson's method of treatment he goes to the root of the trouble.

It seems to me it is nothing but common sense to say that when you have removed the cause, you have cured the case. I have in my room some testimonials given to Dr. Arrington and some of them were given ten or twelve years ago. If any of you are interested in this, it would pay you to get Dr. Arrington to come to your office and show you how it is done. He removes the tartar and gets the mouth perfectly clean—

The President: Do you hold that the disease is local or constitutional?

Dr: Fleming: I hold that it is local. I know there is a theory that it is caused by acid ~~alkaline~~ in the blood.

Dr. McCracken: I had the pleasure of having Dr. Arrington visit my office and I asked him if he would take a case and treat it, and he said he would, and my patient came and asked me what I thought of the treatment, and I advised him to have Dr. Arrington treat the case. I believe it was two or three years ago, and when I started up here he said, "I wish you would tell the boys up there that Dr. Arrington cured me," and his teeth looked nice and clean. And not only that case, but he treated other cases and I do not know of any one who has suffered a relapse from his treatment.

Dr. Jones: What was the treatment?

Dr. McCracken: He removed the cause of the disease, and then he used some camphor-phinique on cotton packed around under the gums then gave a mouth wash. As to his treatment I don't see how he performs the operation so nicely. It takes him from three to five hours to perform the operation and one of his patients would not wait, and I understand today that one side of her mouth is in bad shape, while the other side is in good shape. I think we should send to Dr. Arrington all the patients that we can.

Dr. Betts: I want to ask Dr. McCracken that if in that case does not the patient state that he was cured? In your judgment, was it a well-defined case of pyorrhea?

Dr. McCracken: Yes, you could just press the gum and you know what would be the result.

Dr. Betts: Some cases that come into our offices we call Pyorrhea, when it is nothing but a blue, congested condition of the gums, caused by a large deposit around the necks of the teeth; but in a well-defined case of Pyorrhea there is something more to do than to remove the deposits from around the necks of the teeth; there is a deposit that forms well down upon the roots of the teeth, which is very difficult to reach and remove. I have in my armamentarium instruments of various shapes and sizes and have, with them, as best I could, removed the deposits from the roots of the teeth, and have kept the disease, which was undoubtedly Alveola Pyorrhea, in a state of abeyance.

It is humiliating indeed to be compelled to say to a patient who comes to us with a well-defined case of Pyorrhea, that we can not permanently relieve them of that trouble except by extracting the teeth. There is only one disease that comes especially under our care, and we have not learned to cure it except by the removal of the teeth. There is always a cause for an abnormal condition of any part of the body, and when the cause is removed the normal conditions obtain. We must admit that there is a cause for this disease. Many of us differ as to the real cause. Those of us who believe that a deposit causes it, remove the deposit; and those of us who think that there are other causes than the deposit, set about to find out what they are and remove them. I have investigated no little on the subject, and believe that the cause is local and not systemic. I incline to the belief that the systemic treatment is a matter of experimentation. Some have written advocating certain systemic treatment, incidentally suggesting removing the deposit.

The President: Did you ever ask your patients who were troubled with pyorrhea if they were troubled with rheumatism?

Dr. Betts: Not to much of an extent, but I have read in the text-books that persons of this rheumatic diathesis will probably be troubled with it; but even in those cases the successful removal of the deposit will, in my opinion, effect a cure.

Dr. Arrington came to my office recently, and during his stay of ten days treated nineteen cases. Many of these cases were beyond my ability to cure. I was able to keep them in a state of abeyance only. He came and treated them according to his method and the results were highly satisfactory. Dr. Arrington's treatment of Riggs disease, more commonly known and spoken of as scurvy, is about as follows: In the first place he makes a careful inspection to determine diagnosis correctly; then tests strength of teeth and roots in sockets, and if he finds any worthless and hurtful he extracts before commencing the removal of deposits. He endeavors to be as thorough in the removal of deposits as is possible, as upon this operation hinges success or failure in treatment. He never leaves attached to the roots the smallest particle of deposit that can be reached with instruments, and if, as is sometimes the case, points of deposit can not be reached and removed, then it is the best and wisest practice to extract, for if such teeth remain in the mouth, they will be of more or less continual annoyance. After removal of deposits, he uses dilute Sulphuric Acid with a tooth brush and pulverized pumice stone, varying in strength from one of acid to 8, 10, 15 or 20 of water, as age of patient and conditions of gums indicate. Sometimes he scarifies gum tissue pretty severely for new action. He never uses acid with the view to softening deposits for that is something that can not be accomplished with any acid in the mouth without injury to soft tissues, and risk of injury to nerve tone. The object in the use of sulphuric acid, diluted, is to get favorable action on soft tissues and the Alveolar process. No remedy known to man acts so favorably upon diseased bone as sulphuric acid; and his experience sustains him in claiming as much for gum tissue and mucous membrane. It is not only good for the gums, the best of all remedies, but in antral trouble, as a single remedy it will accomplish most satisfying results.

After use of brush, liquid and pumice, he has patients to rinse mouth thoroughly, and if there are deep-seated pockets, force water into them with a bulb syringe to remove all the powder and detached deposit. Then he instructs patient in use of brush to pervent an accumulation of debris, and in pressing the gums with finger as they shall do systematically

after brushing immediately after meals until cure is complete, and advises that the use of brush, with plenty of water in mouth while brushing, to be a good practice during life—a practice that will unquestionably preclude the possibility of the return of the disease. He advises discardal of all mouth washes and the like, not that any are injurious, but there is not one person in fifty who uses them but neglects the brush. He completes the treatment at one sitting, and applies freely to the gums camphor-phinique, full strength, with instruction not to take any water in the mouth for half an hour or so. This completes his treatment and he claims that it is all that is necessary for a cure. It is simple and plain, but effective as you will learn and be convinced to your satisfaction if you will follow his treatment.

Dr. Ware: I would like to ask Dr. Betts a question. Where the process is not two-thirds gone, and the teeth are not loose, does Dr. Arrington band those teeth?

Dr. Betts: No sir, he doesn't band or ligate in any case. In cases where one or more teeth have elongated and constantly play against opposing teeth, they are touched off so as to keep them from being pushed out of position by coming in contact with opposing teeth.

Dr. Harper: I want to know, Dr. Betts, if since you have witnessed Dr. Arrington's treatment of those cases, if you can treat those cases as well as Dr. Arrington, as successfully as Dr. Arrington, minus Dr. Arrington's experience, and after all has been removed doubtless there is a small amount left in the gum and between the teeth, wouldn't it be better to use peroxide of hydrogen and wash it all out?

Dr. Betts: When I shall have obtained a set of instruments made after Dr. Arrington's patterns, and become accustomed to the use of them I think, perhaps, I can do so, barring and excepting my lack of experience with the disease in its different stages.

If, when the washing is done, a 10 per cent. solution of sulphuric acid is forced well into those pockets you speak of, those loose particles will be washed out. Then if there should be a residuum it can be pressed up into the gingival space and rinsed from the mouth.

I am enthusiastically in favor of this treatment. It accomplishes wonders. I believe it is *the treatment.*

Dr. Horton: I wish to express my appreciation, and say that I have had a great deal of experience in treating pyorrhea, and I heard Dr. Ramsay ask Dr. Betts if they had rheumatism, and I think the majority of them do have rheumatism.

I had a patient last year in the hospital at Salisbury for eight months, but she had it when she was presented to me, yet those lower incisors were decidedly loosened, and though there was no more deposit on her teeth than on other persons who take good care of their teeth, and the question is, is that local or constitutional?

It now being 1 o'clock P. M. the Society takes a recess until 2 o'clock P. M.

AFTERNOON SESSION

At 2 o'clock P. M. the Society reconvened.

Dr. George B. Patterson then read a paper entitled "Building for the Future."

BUILDING FOR THE FUTURE

God in his holy word has taught us as builders to build on a rock foundation. This holds good in temporal as well as in spiritual things, and the same rule can be applied in building a practice in our honored profession. God tells us in Matthew 6:33. "But seek ye first the kingdom of God and his righteousness and all these things shall be added unto you." This should be our foundation; on this let us build a good moral character. But first obtain at least a good English education, yea a complete college education if time and means will permit. Young men, **hear me!** You had better spend more of your time on this foundation work, than in later years to have to spend time in trying to patch the walls of your structure.

Let us put in our structure here a good temper. Do I hear you ask how shall I do this? By cultivating it. You can cultivate a good temper as easy as you can pinks or roses, corn or cotton. Let us add to these graces, love, truth, temperance, meekness and patience. Let us here place a precious stone called conscience. This should always be kept bright and clean. No well kept conscience will ever allow its owner to leave a cavity half prepared or partially filled for overlaping margins to retain the food to fer-

ment, form an acid and set up new decay. Let us be careful in performing each operation entrusted to our care. Let us do the work just as we would do the work if we were working on our own teeth. Here we will lay a stone called pride. Not the kind that makes men wear bungle legged pants, tooth pick shoes, and walk with a rat tail cane, and parts his hair in the middle—not this kind of pride; this is the dude kind; the kind my friends Dr. Betts and Dr. Ayer have. We want a pride that makes good men, better men; a pride that makes men look up to better things in this life; a pride that makes men too proud to do anything that is little and common, against his fellow men. This kind of pride makes a true man; one who can be honored, loved and respected by all.

Here we will lay a caution stone, be careful how you advertise. Some of these stones may fall on you in later life and hurt you. I would rather have a well executed piece of work in some high-toned lady's mouth to walk the streets and compliment it here and there, than to have two columns in a daily newspaper or a ten-foot bill-board on a street corner. The young man says, I must let the people know who I am and where I am. That is true. They will soon find you out and so will your sins. Do not try to obtain more work than you can do and do well. If you do you will have to re-advertise yourself. Let each of us try, as near as possible, to build our practice out of new material. Let us not be guilty of making unkind remarks about our professional brother that we may obtain some patients from his practice to add to ours. There is plenty of work for us all to do, if we will only prove to the world that our work is a success and is worth all it costs. It is thought that not over fifty to seventy-five per cent. of the dental work that ought to be done is ever done, and only about ten per cent. of the work that is done proves to be a permanent success. Can we not by faithfulness and prudence raise these figures? How much more satisfactory will the young builder find it to build his practice out of the new material as near as possible, than to try to obtain the odds and ends of his competitor, and fake advertising?

I feel sorry for any young man who hasn't more talent and self-respect than to enter an office and place over his door the words Dental Parlor.

By so doing he admits his inability to compete with his honest competitor. Longfellow has beautifully said "Lives of great men all remind us, we can make our lives sublime, and departing leave behind us footprints on the sands of time."

Respectfully,

GEO. B. PATTERSON.

DISCUSSION

Dr. Tucker: Along this line I don't know of any better way to promote professional ethics than to have a well-organized local association in those towns. We had one in Greensboro when I went there four or five years ago and it seemed to prosper and do well for a short time but it seemed to atrophy in some way. I am going to see if we can't re-organize, and I would suggest that every year, in places where we could have such an organization to re-organize and promote the interests of the Society in general. It does good in every way, they keep each other posted in various ways in regard to bad patients, and to discuss the latest appliances and other things that are of profit to the Society.

Dr. Harper: In regard to local organization, it has been the pride of my visits in all of the States that I have visited since I went into the practice. I went to Raleigh and I believe the local Society there has given to dentistry a tone and dignity and professional standing that could hardly have been thought possible, and I believe it is the best place for obtaining information. When I go to Raleigh I always go to Raleigh hungry and I never expect to go away hungry. My association with the dentists there has a kind of satisfying effect, and among the many things there that I don't know, I ask some questions and obtain many healthy ideas.

There is a spirit among the North Carolina Dental Society to uphold the ethics of the profession. Of course there are some persons in the State who do not uphold the ethics, I do not deny that, but I believe that *we* all uphold that phase of our Society. And this associating together will give us better ideas than we would otherwise know. A great many of us don't know it all, and I for one am not ashamed to ask questions.

Dr. Osborne: On September 21, 1901, a few of us "tooth carpenters" down in the western part of North Carolina, resolved that we would meet and do a little business in that line of society work. About the first thing we did was to get a photographer and have our pictures taken, and we had the photograph fixed up in the shape of an egg and each one of us took a copy of that picture, and under it we wrote "Dental Society Embryo," and I put under mine, and told the other boys that they ought to add it to theirs, "We will not let it die in the

shell." There is no one thing that has done us more good. I am here to tell you that we have a very nice little organization, it is still living, and we are going to have a pretty good fowl out of it yet, and the dentists around there and at Gaston meet twice a year. There are more dentists in Shelby than in any other place for its size. If there is any place where there is not a Society, get together and get to loving one another. The way we do reminds me of the way they did away back in the pioneer days when a man wanted a chew of tobacco. On one occasion he went to his neighbor's for a chew of tobacco and the neighbor was asleep so he just went into the room and took the old fellow's pants and took the tobacco out, and the old fellow awoke just then and said, "who is that?" and he said, "Oh Jim, it is me, I just come over to get a chew of tobacco and found that you were asleep, and I did not want to wake you up."

You must get together and get to loving each other, or you can't get to heaven. You must get right, and there is nothing that will bring you all together and get you all right better than the local Society will.

Dr. Fleming: There is one phase of the local Society which we all understand, that it strengthens the State Society. There is another way by which we would strengthen our State Society, by getting more men in it. We understand that almost every year there are some who die, some of the best members are called and have to die, and I speak as one of the young members of the Society, that the greatest benefit that I have ever derived in the practice of dentistry will be in the North Caroina Society. It is the greatest stimulus to me to be here and associate with the men who are professionally ethical, and it stimulates us in a way that without the association it is impossible to get. At the time a man graduates, he is unknown and in poorer circumstances than he ever will be again. There are a number of men who take the examination and these men do not attend our meetings, and they go out and possibly never join the Society, they have never tasted of the sweetness of the Society and don't know the influence of it. It is in many cases purely a question of finances. If there was any way to get these men into the Society, and get the older men in the Society to take an interest, if they should try they are willing

to, it has a wholesome bearing upon the lives of those men. I make the suggestion that if the North Carolina Society will take these men in without the initiation fee, that in a few years we would reap the benefit.

The next matter taken up was the report of the committee on the case of Dr. Frank Boyette. This report was read to the Society by the secretary, and a discussion followed, participated in by Dr. Turner, Dr. Dameron, Dr. Betts, and others.

At the meeting of the Committee on Ethics of the North Carolina Dental Association, present V. E. Turner and H. D. Harper of the Committee, to whom was referred the case of Dr. Dameron against Dr. Frank Boyette.

Dr. Boyette states that he did not open an office in Goldsboro without Dr. Dameron's consent. Upon the certificate of Mr. King, Dr. Boyette says:

I did the work for him before I sold out and one of the fillings came out and I made an application and some one else put it in. I didn't put the filling in.

Dr. Dameron's statement:

In the first instance I was at the office, Dr. Boyette at the house. I was not supposed to know what was being done at the house, but I knew one thing, as soon as I went into the office he took his operating instruments up to the house. He also had a phone put in his house. It was for my convenience that he put the telephone at his residence. And another thing, his wife proposed to me to buy the operating chair, which I didn't see fit to sell at that time and didn't do it, and then when the news came and I went and spoke to him about it he said "No" and first one and then another, and then Dr. Parker told me he heard him make an appointment with a lady in the street, Mrs. W. H. Barnes, of Goldsboro, to be operated on at his house. And then another thing, one Saturday, Dr. Boyette's sister came in the office and said he was at the house, that a lady from Winston was there to see him that day and of course he didn't come down. And I was told by a gentleman that Mrs. Alex Dawson, whose addres I can get if Dr. Boyette insists, came up and he was operating for another lady and she couldn't very well wait and she got the other lady to wait and she took the chair in the afternoon. And I think I can get further proof if necessary that he was operating for any and all that would call at his residence, and he had a phone for his convenience and a room fitted up. I didn't see it. I had great confidence in him, I had known

him for a long time. He knows that I did pay him what I promised to pay him, and I gave him a note for the balance.

Dr. Boyette: Dr. Dameron didn't I carry Mr. Scott to you who needed seven or eight gold fillings and then I stood there and did the work myself?

Dr. Dameron: As far as that is concerned, I don't see that he brought any patients at all to the office, but I claim that he then took them to his house in violation of the contract.

Q. Did you ever see this office in Dr. Boyette's residence?

A. I never saw it.

Q. Did you ever know of a patient yourself going there?

A. I never saw one go there. This Mr. King voluntarily told me that he went there.

Q. You don't know yourself?

A. I don't know whether he ever saw Dr. Boyette or not.

Dr. Boyette's statement:

I carried Mr. Scott to him who needed gold crowns made—I made the gold crowns and put them on. I just want to show that I carried patients to him that there was any pay in. I could name numbers of them if necessary. As for Mrs. Barnes, I never worked for her in my life. In all cases where there was pay I carried them to Dr. Dameron.

Dr. Dameron:

I notice that he states that I, through my attorney, offered to sell back the office, etc., to Dr. Boyette. Now in the first place I was greatly deceived in the business of the office as represented by him. When Dr. Boyette knew that I was going to leave the office, or before he knew it, he came down one morning and I said, "You are practicing up at your house and have been all the time" and I said to him that I was going to leave, and I said "Whatever is fair I am ready to propose." He said, "All right, I don't want to go back to practicing, I can't practice for a year yet, I have business in Virginia, I can't be here," and I said, "Well, I am ready to do anything that is fair. This place has been run in my possession for three months, I am willing to allow you $300 for the time I have been here," and I said, "You know you have been practicing all the time I have been here." He said, "You have no right to talk to me that way," and that he couldn't, and that he would wire his brother and they would decide what was right in the mattter and that he would wire me next day at Spencer. I waited the next day and it was the third or fourth day, having received no message from him I wired him, saying, "What are you going to do?" I am not sure, but I think his attorney, Mr. Dortch, replied that he would exchange office furniture, that if I would give up the office furniture he would give

me back the note for $200, and he repeated it over to me several times that he would not enter the practice there any more without my consent, and he knows as well as I do what the status of things were.

Dr. Boyette.

Mr. Scott and his wife, Mrs. J. R. Smith, and others, I carried to his office and helped to do a great part of the work. I claim that I carried all pay patients to him with all candour and honesty.

Dr. Dameron.

I claim violation of the first contract. That was the only contract in person that I made with Dr. Boyette. He persistently violated the contract and I submitted the contract to Judge Robinson and he said, "the contract is too indefinite." If I had written the contract, Dr. Boyette knows that I can write a much better contract than that, but I thought a simple agreement with him was sufficient —that there needed only something to show that there had been a contract. While the next contract was in force he continuously violated it. A man does not have to violate a dozen to be guilty of a violation.

BEAUTY IS ONLY SKIN DEEP

Yes, that's what people say, and we'll waive argument in this matter. But the positive point we want to make is, that however perfect one's face and form may be, if that person has bad teeth, attractiveness is correspondingly marred.

You can have the trouble remedied through the latest scientific methods by consulting

DR. FRANK BOYETTE

Bridge and Crown Work are my specialties.

Dr. Dameron.

As I was going to New Bern in April I saw a copy of this ad. in Dr. Johnson's office in Goldsboro, and when we met in Goldsboro last of June, I called on B. H....., of Goldsboro and asked him if he had a copy of the Goldsboro Argus, and he said I might find one in his room, I made a search and the paper I found was the paper in which the ad. was read before the society, and that was in April I think, and the other was the last of June.

Dr. Boyette.

I don't deny that it was in the paper. The first time that I saw it I went to this ad. man and ordered its discontinuance at once.

Q. Did you see it in the paper afterwards?

A. I don't recall that I did. I don't take the paper and hardly ever see it.

Q. You have never looked to see whether it was out or not?

A. No, I just concluded that it was. I spoke almost rough to Brown about it. I used words that I would not like to use before you to him.

Dr. Frank Boyette makes answer, as follows, to the charges and specifications made against him by Dr. L. L. Dameron.

I. In regard to allegation I., he denies any deception. He acknowledges the balance of allegation I., with the exception of opening an office at his residence and re-entering practice at once, which he denies.

II. In answer to allegation II., he denies any violation of his contract, in that the work he did at his residence was on his immediate family, for which he received no remuneration and which he alleges he was allowed to do by terms of the contract between him and Doctor L. L. Dameron.

III. In answer to allegation III., Doctor Boyette states that Doctor Dameron offered him One Thousand ($1,000) Dollars for said Doctor Boyette's office and good will, which offer Dr. Boyette accepted, and in every way performed his part of the contract, as is stated above.

After performance of this contract, Doctor Dameron abandoned his practice in Goldsboro, and then, through his attorney, W. S. O'B. Robinson, offered to sell back the said office and good will to said Doctor Boyette, which offer said Doctor Boyette's attorney, I. F. Dortch, accepted.

Furthermore, the said Doctor Boyette states that he carried patients to Doctor Dameron, which he (Doctor Boyette) had commenced work on, and allowed the said Dameron to complete the work, and receive pay for the whole work, which said Dameron was not entitled to by contract, and moreover Dr. Boyette completed the work himself, and allowed Dameron to collect therefor, which, by the contract, was due Doctor Boyette.

Doctor Frank Boyette, for his answer to the charge, "A Violation of the Code of Ethics," made against him by letter of October 10th, 1904, for advertisement in Goldsboro papers, offers as evidence in reply thereto, the attached affidavit of C. A. Brown, and denies all knowledge of such advertisement, until it was inserted in the papers, and then he ordered it discontinued at once.

Wherefore, he asks that said charges be dismissed.

FRANK BOYETTE

New Bern, N. C., Sept. 28, 1904.

Dr. V. E. Turner,
Raleigh, N. C.

Dear Doctor:—

Your favor of the 23rd inst., is received, and in reply I will say that I expect to be present at the time you indicated, Oct. 18, at the investigation of the matter between Dr. Boyette and myself, by the Committee on Ethics.

I submit the names of the following witnesses:

Dr. B. F. Arrington, Goldsboro.
Dr. J. M. Parker
Dr. J. N. Johnson.
L. L. Dameron.

L. L. DAMERON.

New Bern, N. C., Sep. 30, 1904

Dr. V. E. Turner,
Raleigh, N. C.

I have yours of the 29th inst., and make the following charges and specifications:

(1) I charge him (Dr. Boyette) with practicing deception, in that he sold out his office, good will and assistance to me, and promised me not to again enter the practice of dentistry in the town of Goldsboro, without my consent, and he stated as his reason for selling, that he had important business matters pertaining to the estate of his wife's father, that made it necessary for him to discontinue practice for at least one year, but in the face of all these and similar statements he opened an office at his residence, and re-entered practice at once.

(2) I charge him with violating his contract, in that he sold his office, good will, assistance, etc., to me, and promised to work in the office for me for such of his former patients as preferred his services, and promised to bring them all to that office, but in violation to this promise he took them to his office at his residence, and operated for them there.

(3) I charge him with retaining money that does not justly belong to him, in that he retained $800 which I paid him for his office, good will and assistnace, and because of his promise not to enter the practice of Dentistry in Goldsboro again without my consent, which promise he continuously violated, but still retains the money which I paid him.

Any other information will be promptly furnished if necessary.

Yours truly,

L. L. DAMERON

Goldsboro, N. C., Oct. 4, 1904

Dr. Frank Boyette having informed me that there has been some adverse criticism concerning the above attached advertisement, the undersigned desires to state that he changed Dr. Boyette's card, advertising his dental business, to the above wording without the knowledge of Dr. Boyette; and also affirms that Dr. Boyette ordered the publication of the above advertisement to be discontinued from the Daily and Weekly Argus, but, through neglect I failed to discontinue same, and it accordingly was allowed to appear in the columns of said paper after its discontinuance was ordered. I was, at the time of the insertion of the above advertisement, "ad." man and make-up for the above papers, and through courtesy to Dr. Boyette took it upon myself to change the wording of his Dental advertisement, not knowing that there was any restriction placed upon dentists as to the manner and wording of an "ad." so long as it did not reflect upon another dentist, his business or character.

Dr. Boyette is in no way responsible for the apperance of the above "ad."

(Signed) CHAS. A. BROWN

October 8th, 1904.

Dr. L. L. Dameron,
New Bern

Dear Sir:—

In reply to your letter of a few days ago in regard to Dr. Frank Boyette, will say that he did dental work for me in 1903, at his home during time that you occupied his office here.

Yours truly,

B. R. KING

LAW OFFICE
OF
ISAAC F. DORTCH

Goldsboro, N. C., Oct. 14, 1904

Dr. Frank Boyette,

Dear Sir:—I knew nothing of the making of the contract between you and Dr. Dameron.

My only connection with the matter was as follows:

You told me that you had sold out your business to Dr. Dameron, and that you held his note for the balance of the purchase money; that some controversy had arisen between you; that Dr. Dameron had placed the matter in the hands of Judge Robinson, as his attorney, and you asked me as your counsel to confer with Judge Robin-

son, and to settle the matter as I thought best. He and I readily made a settlement, by your surrendering Dr. Dameron's note and by taking the possession of the office.

I saw nothing in the transaction to indicate that you had done more than to make an ordinary business contract; and certainly I saw no evidence of legal or moral wrong on your part.

Yours very truly,

I. F. DORTCH

I concur in the above statement.

W. S. O'B. Robinson.

Dr. Turner: I don't think it is customary to proceed against a man who is absent, if he has a legitimate excuse for being absent. These things go on record, and yet I believe it is customary in trials of this sort in person to furnish a certificate of a physician. I am not trying to defend Dr. Boyette, but I am trying to prevent the making of any mistake in this matter. The matter is entirely in your hands. We did not think it the duty of the committee to do anything except to recommend the amount or character of punishment.

Dr. McCracken: Did I understand you to say awhile ago that he was guilty of practicing after he had sold out.

Dr. Turner: That is what the report says.

Dr. Dameron: I hold other documents and letters that could be introduced here.

Dr. Turner: I do not think it would be right to introduce any evidence that was not presented to the committee at the trial of the case, unless the other party was here to present his side of it. That is my opinion, but I don't know whether the Society will sustain me or not, but the only point I want to make is, that we don't want to subject ourselves to any criticism for any action we may take here.

Dr. Jones: I was on the committee, but not able to be present, and yet I wish to say that I agree with Dr. Turner.

Dr. Betts: In view of the condition obtaining in the absence of Dr. Boyette, and in view of the fact that this thing is in such shape that we do not know how to act—the committee not having recommended any course to be pursued—I move that we accept the report of the committee, and defer action, or let

the matter be held in abeyance until the next meeting.

Dr. Turner: I hope that the gentleman will not insist upon that. We have investigated this matter as far as we thought necessary. We have reported to the Society what our opinion is, and if the Society accepts our opinion, the Society should enact such penalty as may be desired.

This discussion was continued at great length, and the Society finally adopted the report of the committee, and found Dr. Boyette guilty as charged in the report.

Dr. J. R. Osborne then read his paper on "Where I Stick Out and Why".

WHERE I STICK OUT—AND WHY

It is customary for the essayist to preface his paper with a definition of his subject. If my subject this evening was Pyorrhea Alveolaris, I would commence, "This disease denotes suppurative inflammation of the gums and peridental membranes, etc. etc.," or if my theme was "The Human Parotid Saliva," I would go ahead and invite you into my subject by a statement like this, "This secretion is a product of the Parotid glands, and is a clear, watery, alkaline liquid, which is poured out abundantly during mastication but in very small quantities while at rest." Where I Stick Out—and Why is the "entitlements" for what I have prepared for your earnest and careful attention on this occasion. In defining this subject, I will

SUBJECT DEFINED.

say after following the work for almost a score of years, all the while conscientiously trying to do that which is best for patient and profession, I have naturally grown strong on some lines and weak on others. I have much better success doing certain things certain ways, and this has had the effect of causing me "to stick out" at some places. Again, I have followed what was considered to be authority on certain lines to meet failure on every hand. This has caused me to "fall down" and in at the points where they touched, and has the effect of making me appear the more rugged and "stuck out" where I am already prominent.

PULP MUMIFICATION.

I stick out boldly and prominently for Pulp Mumification in the treatment of all aching teeth, posterior to the cuspids. Briefly, my reason is I can give my patients much better service with much less

pain and trouble than the old way of Arsenical applications and the torturesome nerve broach. I have lain aside prejudice and fear in this matter and am better satisfied with the good results that follow this treatment than I could possibly be following the old way with its attendant pain, high percentage of loss of teeth and dissatisfied patients. I repeat I stick way out for this work and would be pleased to give other "whys" in discussion.

INLAYS—GOLD AND PORCELAIN.

I stick out for Inlays-Gold and Porcelain. My doctrine is that a better adaptation of material to cavity walls can be secured with modern inlay systems than can possibly be with filling materials, using mallet force or hand pressure. Upon this one point is the main fighting ground for a comparison of the value of these methods. The bugaboo of cement disintegration, with the much vaunted disastrous results, has kinder fallen down and Time has proven it to be "the tempest in a tea pot" argument in discussion of modern methods of teeth filling. When several leading lights—authorities—in discussion at a meeting of the Southern in 1898, proclaimed that "a chain is no stronger than its weakest link, and that cement will surely disintegrate and failure consequently ensue" they surely and certainly dealt a heavy blow to the cause of dentistry, and when Alexander, replying in his modest way, said that "time will tell the tale," he very faintly predicted what was in store for dentistry—being at such odds—and all's the pity. The day of restoration of contour, by the hammer route, with its long, tedious, tiresome, painful hours of toil is passing away, (slowly, of course) and on no one fact does this principle depend more that that of perfect restoration (with a choice of two materials) modern inlays.

FILLING VS. CROWNING,

I stick out for filling teeth as long as possible before crowning. I am of the opinion that recurrence of decay comes less often under fillings than it does at joints of porcelain crowns or edges of gold shells. Filling them does not destroy the chance or possibility of crowning and I feel like I have given my patients the best service when I have left off crowning until that operation is positively indicated.

ANESTHESIA.

I stick out—positively stick out—for Anesthesia, local and general. One of the supreme duties of the dentist is to inflict as little pain upon his patient as is possible, using, of course, due conservatism. Say what you please, say that painless methods are adver-

tised by the quack, but the time has arrived when the reputation for doing dental operations with a minimum amount of pain is a cinch for the dentist who possesses it. Do not forget that off your mind. Patients of dental service are due all that we can give them on this line, and while I do not stick out for namby-pambyism or slip-shod methods because it hurts, I am sticking out all along the line for employing all methods within our means to make it as bearable for our patients as possible. I feel sure we are not doing the correct thing in not using a local anesthetic, for instance in the extraction of teeth, since it has developed that less than one per cent. of cocaine used with antiseptics and heart stimulants, will produce perfect anesthesia in most cases without a particle of danger, with very few exceptions. It is our duty to take necessary pains and trouble to administer it, and when a general anesthetic is positively indicated, as it oftentimes is in every practice, I stick out that it is not only a privilege that is valuable to us in our practice, but it is a bounden duty to know how to scientifically adminiter it.

KEEPING RECORDS OF WORK.

I stick out decidedly for keeping records of work. This is one thing that I initiated early in my practice and am sure there is nothing that has given me greater pleasure or profit. Examining records of different dental operations done sixteen years ago is a very pleasant and profitable task. Allow me to say just here that I am called upon quite often to examine the work of the charts only, Old Man Time having swept the work and the teeth off the deck, in many cases, long, long years ago. But I have the advantage of utilizing this negative experience to my good. How is the dentist to know what he is doing in any line of practice, if he has no other resort than that of memory? Could not any dentist leave to posterity fifty per cent. more of that that is desirable by handing down an experience backed up by carefully kept records? In my opinion this is a lesson that the young man just starting should learn to the point of adoption, and if what I am saying here, or in the discussion that may follow, I succeed in convincing even one of these young men of its importance, I feel sure that I am fully repaid for making this trip and writing this paper.

SPECIALIZATION.

I stick out right much for Specialization in dentistry against the dentist trying to do all the things that he is called upon to do. I argue that the busy dentist doing a general practice cannot give some of the subjects, for instance Orthodontia or Pyorrhea, the at-

tention and skill these subjects require. These can best be treated by ones who make these lines a specialty. A careful analysis of this subject will leave us in possession of these facts: The general practitioner has not the time necessary to devote to this work, nor can he, in a majority of cases, collect the fee these services demand. The specialist can give better service of this character than the general practitioner and can much more easily collect a fee commensurate with the service.

GOLD SHELLS IN FRONT.

I stick out against Gold Shells in front. No matter what the "Deuce" my patient wants. Reason of this is the gold don't look good. I do not want folks going around with gold shells in front of their mouth saying that Osborne did it. I would consider this building up a practice in a craw-fish way. I say that it is the duty of the dental profession to do all they can to relegate this relict of barbarism to the rear as soon as possible. The sooner we see it no where except in the mouths of free negroes and those of the Hindoo type, the better for dentistry, true dentistry.

WAXABLE RUBBER.

I am beginning to stick out right smart for Waxable Rubber in making rubber plates. Anything that lessens the work and dirt of rubber plate making will find a welcome in the profession, and there is no twenty-seven ways about this waxable rubber idea doing this. No waxing up, no scalding out, no hot water with melted wax attached, no packing, no flasking and that is a whole lot. You will please not forget that off your mind. The strength is all right. the polish is all right. There is not a hitch in it, and if you will try it, and fail to adopt it, I am here ready to say that it is because you are used to doing it the old way, and will have some trouble at first in articulating the teeth in soft rubber rather than in wax. Better get used to this way of making plates, and my word for it, you will be sticking out even worse than I am.

SOCIETY WORK.

I stick out, way out, like a wagon tongue, for Society Work, local and State. I believe in dentists being social and brotherly. Anybody not built this way, is something else—is not a dentist in a true sense. Were it not for the social idea that has prevailed with dentists, exemplified by society work, what would the profession be today? The three great educational factors in dentistry—the college, the journal, the society—would be a puny affair, indeed, minus the good work that has been done by the society. As I see it, to be imbued

with this social spirit, chock full of social equality and brotherly love kills out a whole lot of the selfishness, the egotism, the niggardliness that is prone to be sticking around some where in the vitals of every dentist. I am sorry for the fellow who never enjoys the old time religion or feels the impulse of a brother practictioner's heart-beats, who is engaged in doing the social act to every tooth carpenter with whom he comes in contact. I stick out for dentists visiting each other, exchanging ideas, rubbing up against each other, talking and singing and laughing and shaking hands. I believe in no other way can this social side of dentistry be cultivated so well and so completely as in the society. My love for the society and the profession would be a slender affair were it not for the inspiration I have received from this source. I stick out here to the extent that I do not feel like that I would want to pursue this work, putting on the dam, trying to find root canals in molars and bicuspids, trying to please people that God Almighty never intended to be pleased with anything, trying to collect fees off people that can't pay them, and off of folks who can and won't, trying to feed starving children and attend dental conventions, where I meet my friends and dental goods dealers whom I owe (and all the time they want their money) I say I could not stand all this if it was not for seeing Tucker's bald head, Everett's upper lip, and Turner's goatee, at least once a year.

Yes, I like it so well, this society work, that I have done my part in organizing, attending and maintaining a local society. And here, brethren, let me say to you, so far as our experience goes, it has been very helpful to us. This is voicing the sentiment of every member, and since we organized, in 1901, there has nothing transpired but has been for the betterment of dentistry in our part of the State.

I stick out for closing this harangue. I am sticking out several other places, but I feel like I have already used a certain pronoun so often that it would be an imposition tto punish you further, so I close.

J. R. OSBORNE

October 8, 1904.

DISCUSSION

Dr. Jones: I am certainly interested in what Dr. Osborne has had to say, but I must differ with him. He says his record only goes back two or three years. No man can say if treatment is right until it is left more than two or three years. A statement like that on this floor or any other convention must be taken with a great deal of salt. It is all right to make experi-

ments, and I am here to say that you can get the nerves out of the teeth if you try to get them out, and I believe it is criminal practice in some cases not to take the nerves out, and I believe it is the dentists duty to get the nerves out if you can get them out, but if you can't get them out, I believe then that you ought to treat them. I don't believe that such a method can be counted a success without some treatment. I remember a German dentist that just put his filling down on the body of the nerve, and we know that has been a failure. I am surprised at Dr. Osborne in saying that all teeth should be filled in that way.

Dr. Osborne: I was just expecting that the discussion of a paper like that would provoke a protest, but I think it my duty to tell what I have done. I can't wait 10 or 20 years before I tell you about it, because my teeth that I have done that way have done better. I want to say this, that the Journals do not condemn it. Is W. D. Miller an authority? Well, he, at the .....Dental Society, got up and made just such a statement as that.

Dr. Jones: Do you mean to say that W. D. Miller advocated filling in that way, without any other treatment?

Dr. Osborne: He advocated that plan. He made this reference—If you will take the history of the subject and come up with it you will find that they have been filling with it and it is not so unscientific, and it is not painful if you have success with it. I have written to two or three men who have claimed to have success with this treatment and their letters have been very flattering. I know it is hard to go against the tide, but I have used it for two or three years and have had but very few failures with it. In a few cases, about three weeks after I applied the application, I have had a little trouble, but not enough to extract the teeth.

Dr. Hall: Did you have to remove the fillings?

Dr. Osborne: No sir, they said that they had jumped a little. If they had jumped enough then I would have jumped up and pulled them out. If it is not the displeasure of the Society, I would like for Dr. Ware to give his opinion of it.

Dr. Fleming: I would like for Dr. Osborne to state what degree of success or failure he had with the old process.

Dr. Osborne: Pretty much all of them worked.

Dr. Griffith: We have with us this afternoon our friend, Dr. Calvert, and I would like to hear from him, only he asked me not to call him out.

Dr. Calvert: About two years ago I became interested in this subject. I received a package of this paste and it gave the names of several dentists who were using it successfully, as he claimed, and I picked out five dentists, one in Florida, one in Illinois, one in Iowa and one somewhere else, and in reply to my five letters I received four answers. Two of them said that it was a failure and two of them said that they could not keep house without it, and that it was necessary in their practice. I ordered a package and I suppose I filled fifteen or twenty teeth and I went a little further than Dr. Osborne and filled several of these teeth right down on the cross nerve of the molar and put in this application, and contrary to reason, I packed soft amalgam in some of those teeth. I heard from some, some gave me trouble, and some did just as well as any I had filled theretofore.

Dr. Turner: What proportion were successful?

Dr. Calvert: About half of them were successful, and the other half failures, and in several other cases I had trouble and have gone into those things and removed those things and filled the cavity in the old way.

Dr. Mathews: How long has it been since you first used that?

Dr. Calvert: About two years.

Dr. Mathews: Those others that you opened up, did you find any pus there?

Dr. Calvert: No sir, I don't think so. I have abandoned it on account of those failures I have had, and went back to the old way.

Dr. Jones: I wish to say that I do not criticise Dr. Osborne for making experiments. Now the idea that I wanted to express was that I do not think that the dentists ought to make an indiscriminate use of these things, I think it is all right to take a few cases and make them experiments.

Dr. Tucker: I have been following this practice for about three and a half years and my success has been greater than by disinfecting the nerves and trying to fill the roots. I have three in my mouth and have had very little trouble. Of course

occasionally I have to paint my gums with iodine. Where some have got a great deal of inflammation with pus, I try to fill the roots, but where there is fresh pulp I just cut the fiber out and fill it as Dr. Osborne says he does.

Dr. Hillard: I had one failure and that was last week and I took the pulp entirely out. That is the only failure I have had in three years.

Dr. Griffith: I am always glad to hear of these things, but when a man has labored for a long number of years for a practice and has got lots of nice people, he adopts methods that he thinks will be permanent, but he will not try these things. We come to the Association and we hear Dr. Osborne and Dr. Tucker talk about these things, and we will get some of these new things; but I think we ought to get some of it and try a few of the worst cases and experiment with it in that way.

I heard of a young man killing his practice in a large school of several hundred ladies. Some preparation of this kind came up and he was assured that there was no trouble and that it was the nicest thing in the world, and began to use it without taking out the pulp, but they began to drop back on him and at the end of two years fifty or a hundred of these teeth were ruined. He unwisely tried to save the pulp. Dr. Kellog says that you must follow his instructions. You must use peroxide of hydrogen.

Dr. Durham: I have some patients with teeth that have been filled in that way, and have been in there about 7 years. They were put in there by my father, and when he started to using it he selected about a dozen teeth suitable for it and made the experiment and quit a year or two and it was successful, and since that time, for the last year or two, I have been using it extensively and have had great success with the use of it. I don't recall but two failures, but you must know how to use it. Where you use arsenic to kill the nerves I cut out all nerve tissues before using it. I had a little interesting case in March. It was one of the first cases that my father had filled. The gentleman came in March and I examined the teeth and cleared out the cavity and I came to where this paste was and I found the crown portion of the nerve was cut out. I had to clean out the teeth thoroughly so that I could examine it thoroughly and I took an explorer and touched down in the

crowns and I saw a little blood ooze out of the crowns and I asked the patient if he felt any pain and he said that he experienced no pain at all, so I added a little more paste and filled it and he told me a few days ago that it was all right.

Dr. A. H. Fleming: If that is malpractice I must be a criminal. I don't recall a case in the past 18 months or two years that I can truthfully say that I have tried to get out all the contents of the root canal, not even in front teeth. I think that if you will use a burr and get all that you can get out, and put in a good antiseptic dressing I believe you are safe. I worked in an office that treated that way before I went to college, and I have some of those cases that have stood for six years and I know they are sound. I had occasion to cut off two central incisors that Dr....., of Winston had filled, and when I was a boy about fourteen years of age I was in his office and remember a good many things that he told me about dentistry. And he told me about mumification because he was mumifying a tooth for me and it has never given me any trouble, and I think, in most cases, especially in the back teeth, where you have got small root canals to contend with, that the risk that is run in trying to remove small portions of the pulp from one of the small nerve canals the chance is of cutting through the root and setting up inflammation. My practice has been to remove as much pulp as can be removed with the burr and a Gates-Glidden drill. I never take a brooch to twist around in the nerve canal to try to remove the nerve. When I have removed the pulp I sterilize the cavity with some strong antiseptic and put my mumifyer in, and I have never had a case that was a failure. In regard to the teeth that I cut off, one that Dr. Driggs had filled that the patient told me had been filled some fourteen or fifteen years. The first of them had been refilled and they had never gone into this root canal. On top of this he put a little cement, which I removed easily, and when I opened this root canal I found the nerve in a perfectly healthy condition and prepared those root canals and set porcelain crowns. That has been four or five months ago and the patient says it has given no trouble at all. The mumification can be imposed upon. I don't think it is the proper thing to expose the thing and mumify it. I believe the mumifier will act better the less surface it has to

mumify. I don't hesitate to put this in the abscess root, provided I have a fistula. I consider the good you do in mumifying, in matter of use and comfort to the patient, much better than the old way.

Dr. Turner: I could not let my friend Osborne come here and read a paper about "How He Sticks Out" without saying something. I was not very attentive to the discussion, because I had to attend to some other matters. As I understood the essay, he was not so particular in removing the nerve tissue as described by Dr. Fleming. I would rejoice as much as anybody if that particular operation could be so simplified as claimed by the advocates of the mumifyer. I cannot understand how it could be that anything that you put in there could stay there for years and years without any danger of giving trouble, especially if there was any space of any consequence left unfilled, as would be the case according to the plan advocated by some of the gentlemen. I can't understand how it is that Dr. Fleming has had no trouble; because, even with the best operators, it is very difficult to fill the bucal roots of the first molar and first bicuspid, and there are certain things that can be put in which will keep the teeth quiet for years and years, which has been used long before the mumifyer was discovered, but if there is any material part of the nerve tissue left I can't see how you can mumify and have it remain in there without trouble. It strikes me that any rational dentist would fill all accessible and especially those of the teeth which are to be crowned. The entire tooth would have to be so open that it would not require a great many years of experience or great skill to fill such roots with gutta percha and settle the matter, rather than have the risk of leaving some tissue in the canal. I believe the safest plan to pursue is the old course, to take out all of the nerve possible with a brooch or anything else and to fill. If the roots are so tortuous and small it is very often that with a little iodoform paste you can put down your gutta percha, and the iodoform paste will stand without any mumifier at all. I believe that it is possible in many cases to leave the root un-mumified for a great many years. I had a wisdom tooth that remained quiet for years, there was nothing in it but a little carbolic acid and cotton.

Dr. McCracken: I have been using this paste for over five years, and I do not hesitate to use it if I get the pulp crown in

condition which I want, but you must know how to use it. I used this paste in one of the Professor's teeth and he asked me if I did anything to avoid extraction of the nerve, and it is a front tooth, and he has been using it for six years and it is good yet. I will admit that I have had some teeth come back on me, but I tell you that if it is filled right there is no way for any gas to get in or out, but the minute that tooth begins to leak, that tooth is going to give you trouble. Whenever the air gets to this pulp that you have mumified you might say that mortification takes place at once and you must open it and take it out. I use that altogether in the wisdom teeth. I have covered them up very carefully and have found that from one-fourth to one-eighth of an inch down. I think that it is much malpractice and much more cruel to the patient to try to extract all of the nerve. Understand me, I don't use the paste that Dr. Osborne uses. I have a paste that I use myself that does not discolor any of the teeth.

Dr. Mathews: Dr. Kellog wrote me that the nerve should be exposed. I asked him if it would do to fill with cement, and he said no, to use amalgam.

Dr. Turner: I was a little bit surprised at the broad statement of Dr. McCracken, that we should try to get all of the nerve out of the tooth.

Dr. Hall: I wish to say that we are rather prone to shirk doing work and getting something easier. I tried a little paste once and don't think that we should try things like that in every case. I think it is very little trouble if we use these little hand-drills and enlarge those canals and then we feel absolutely sure that they are going to remain all right.

I feel sure that this Kellogg paste or mumification paste is justified in use in small cavities that we cannot get open. I am satisfied that in a few cases if we can remove the nerve and sterilize with creosote or oil of cloves, I mean where the cavity is very small, that possibly there would not be enough of this secretion get into that canal to cause any trouble. I know of a number of cases where the root canals have been devitilized and remained perfect, usually for five years.

FRIDAY NIGHT'S SESSION.

The Society was called to order at 8.30 o'clock, by President Ramsay.

The report of Finance Committee was read, and on motion was adopted.

Report of Publishing Committee was read, and the same was, by vote of Society, adopted.

Officers and Members of North Carolina Dental Society:

The publishing committee endeavored to condense the proceedings as much as possible; to condense more would have been to omit valuable and intelligent thought.

.Very respectfully,

F. L. HUNT

Dr. L. M. Humphrey offered the following paper, entitled, "A Stand For Our Profession."

A STAND FOR OUR PROFESSION.

I wish to bring a matter before our Association which should arouse the pride of every member to such an extent that he would not be content to rest until it had been settled to our supreme satisfaction.

The question is the legality of prescription writing by Dentists. This privilege has been questioned and antagonized by some who may be prejudiced. Growing out of the law as laid down in the Watt's Law; this fundamental, essential right has been disputed; not only as regards whiskey, but generally speaking, in his practice.

The City Attorneys, in some of our prohibition towns having already decreed that, in their opinion, the question was illegal, as the Watts Law reads, that "only a regularly licensed practicing physician should write a prescription for whiskey," and this has led to his privilege to write any prescription at all to be questioned. Now the definition of a physician is, "one who is licensed to prescribe remedies for and treat pathological conditions of the human body."

Now, technically and morally speaking, this word "physician" is a general term embodying a "Doctor of Dental Surgery" equally with a "Doctor of Medicine."

Why are we drilled in prescription writing and therapeutics and pathology in our colleges, and subsequently examined by a State Board of Examiners upon these subjects, if we are not to be allowed to prescribe for our patients as our judgment may dictate? We all know the importance of prescribing a purgative in cases of abscesses, congestion or inflammation; anodines to relieve pains; narcotics to

induce sleep; cordials and respiratory stimulants, antiseptic washes and dressings.

Still, simply because the law does not distinctly specify that the Dental Practioner shall write prescriptions, why it has given some persons the opportunity to question our absolute professional rights. It is a question touching our pride and principle, and I suggest that we take immediate steps to have the matter settled forever by State legislation, if necessary.

Signed, L. M. HUMPHREY,
Greensboro, N. C.

Dr. Bland, in a few remarks, stated his ideas on the subject, and favored the stand taken by Dr. Humphrey.

Dr. P. E. Horton also favored same, and stated that he had recently seen it stated that Judge Clark, of the Supreme Court, had handed down a decision that a dentist has no right to write a prescription for whiskey.

Dr. V. E. Turner, in speaking on the subject, argued that to be denied the right to write prescriptions as we see fit, is a source of humiliation for the dental profession, and favored the appointing of a committee to look to having such legislation enacted as will give dentists their rights in the matter.

Dr. F. W. McCracken, Dr. I. H. Davis and Dr. A. H. Fleming favored the motion and endorsed the sentiment voiced in the paper.

Dr. Humphrey, in stating his further views in regard to the matter, took occasion to say that he took the position he holds, not that he wanted to write prescriptions for whiskey, but on account of the principle involved; that, in his opinion, being the most serious aspect of the situation.

Dr. R. H. Jones opposed the move, stating that, in his opinion, no good would result from it; that present conditions worked no especial hardship, for, usually a physician is near at hand, and if need be he can prescribe the stimulants necessary.

Dr. Griffith thought there must be some mistake about Justice Clarke's having recently handed down a decision in regard to the matter; for he knew to a certainty that Justice Pearson had decided years ago that a dentist is a physician. He opposed any agitation at this time.

Dr. Harper thought that the discussion had taken an unfortunate course, and did not favor further agitation.

On motion of Dr. Griffith the matter was laid on the table.

Report of Supervisor of Clinics was read and adopted, and on motion of Dr. J. M. Fleming a vote of thanks was tendered him. Also ordered that the Treasurer reimburse him for any expense having been incurred.

REPORT OF SUPERVISOR OF CLINICS.

June 30, 1905

I. I beg to offer the following report: Dr. R. L. Ramsay inserted a cast gold filling in a left central incisor. The work was beautifully done, and excited the admiration of all present.

II. Dr. F. L. Hunt placed a porcelain inlay in S. Left L. Incisor labial surface, restoring lost tissues representing the gums.

III. Dr. A. H. Fleming inserted a gold inlay in a molar, which showed skill and unusual manipulative ability.

IV. Dr. J. C. Watkins exhibited several specimens of prosthetic porcelain work.

Dr. C. L. Alexander gave a table clinic.

Dr. J. C. Watkins made a clinic, showing the use of Prosthetic Porcelain in crown and bridge work. He showed in detail the different steps in the construction of a crown:

1st. By burnishing pure platinum plate on prepared root that is to be crowned, inserting part of same metal and soldering the two with pure gold.

2nd. Grinding ordinary plate tooth to fit case, and soldering pins to extended post with pure gold.

3rd. Building up and matching tooth with prosthetic porcelain which in three or four bakings gives a beautiful crown.

The same methods can successfully be applied to bridge work.

Respectfully submitted,

B. F. SMATHERS,

S. Clinic

J. M. Boyette, I. W. Jamison and S. J. P. Lee were dropped from membership according to requirements of Constitution and By-Laws.

On motion, J. M. Jacobs was allowed to withdraw at his own request.

The election of officers for the ensuing year resulted as follows:

President—J. S. Betts
1st. Vice-President—C. A. Bland.
2nd. Vice-President—J. R. Osborne.
3rd. Vice-President—J. R. Osborne.
Secretary—J. C. Watkins.
Treasurer—R. M. Morrow.
Essayist—R. E. Ware.

Dr. Hillard and Dr. Tucker were elected to succeed themselves as members of Examining Board.

High Point was selected as the place of meeting, and the time left with the Executive Committee.

Dr. Griffith offered the following resolution, which was adopted.

Resolved, that the resolution allowing applicants for license to become members of the Society before successfully passing the Examining Board be, and the same is hereby rescinded.

The President appointed the following committees:

Executive—D. E. Everett, W. B. Ramsay, E. J. Tucker.

Ethics—V. E. Turner, H. D. Harper, Sr., R. H. Jones.

Necrolorgy—R. H. Jones, L. L. Dameron, G. B. Patterson.

Membership—J. C. Osborne, R. T. Allen, E. O. Chambers, J. M. Fleming, J. N. Johnson, F. S. Harris, Wm. A. Hays, Oscar Hooks, J. H. Judd, C. W. Regan, E. W. Shakelford, W. T. Smith, C. A. Whitehead, M. M. Harris.

REMARKS OF RETIRING PRESIDENT.

I feel greatly honored to have had the pleasure of presiding over so elegant a body of gentlemen, and greatly appreciate the hearty support given me by the members of this Society in the administration of its affairs.

The gentleman whom you have elected as my successor is in the highest sense worthy of the honor which you have conferred upon him, and I congratulate you in your happy choice.

TREASURER'S REPORT.

Amount on hand last report	$108 72
Received for membershoip	115 00
Received for dues	258 00
Received for reinstatement	6 00
Received for note	290 00
Total	$777 72

Disbursements

Paid Stenographer (at Morehead)	$ 32 00	
Paid Sup. of Clinics (at Morehead)	1 50	
Paid Janitor (at Morehead)	5 00	
Paid R. H. Jones	42 08	
Paid Edt. Proceedings of Society	25 00	
Paid Pub. Proceedings of Society	125 40	
Paid V. E. Turner	165 42	
Paid Secretary, Salary	50 00	
Paid Secretary, Expenses	45 95	
Paid Treasurer, Salary	25 00	
Paid Treasurer, Expenses	9 25	
Paid on Note	200 00	
Paid Interest on Note	11 88	
Total		$738 48
Balance on hand		$ 39 24

R. M. MORROW, Treasurer.

June 30, 1905.

REPORT OF AUDITING COMMITTEE.

Your Auditing Committee beg leave to submit the following report: We have examined the books and accounts of the Treasurer, and find them to be correct.

Respectfully submitted,

Geo. B. Patterson
J. R. Edmundson
J. E. Wyche

LIST OF MEMBERS.

Alexander, C. L. ..... Charlotte
Allen, R. T. ..... Lumberton
Banner, J. E. ..... Mt. Airy
Banks, C. H. ..... Louisburg
Bardin, J. B. ..... Cerra Garda
Battle, J. J. ..... Rocky Mount
Beam, C. M. ..... Shelby..
Bender, O. J. ..... Pollocksville
Betts, J. S. ..... Greensboro
Biggs, J. D., Jr. ..... Williamston
Bland, C. A. ..... Charlotte
Bland, M. A. ..... Charlotte
Booth, R. S. ..... Warrenton
Brooks, J. H. ..... Burlington
Bryan, N. L. ..... Newton Grove
Carr, Geo. A. ..... Durham
Carr, Isaac N. ..... Durham
Carr, R. L. ..... Greenville
Carroll, N. G. ..... Raleigh
Carlton, J. D. ..... Spencer
Carlton, J. W. ..... Warsaw
Chambers, E. O. ..... Asheville
Cole, R. S. ..... Rockingham
Conrad, W. J. ..... Winston
Croom, J. D., Jr. ..... Maxton
Culbreth, N. M. ..... Wilmington
Cutchin, R. S. ..... Whitakers
Dameron, L. L. ..... New Bern
Daniel, H. C. ..... Salisbury
Davis, I. H. ..... Oxford
Davis, W. Ross ..... Whiteville
Dula, A. M. ..... Black Mountain
Durham, B. J. ..... Asheville
*Early, E. F. ..... New Bern
Edwards, W. H. ..... Wake Forest
Edmundson, J. R. ..... Wilson
Everett, D. E. ..... Raleigh
Eubank, F. W. ..... Hendersonville

Ezzell, W. Lee.....Charlotte
Faulkner, Thos. H.....Kinston
Fawcett, J. W.....Asheville
Fleming, A. H.....Spartanburg, S. C.
Fleming, J. M.....Raleigh
Frazier, A. E.....High Point
Gallagher, R. T.....Washington
Gamble, J. C.....Aster
Greer, J. L.....Rutherfordton
Gidney, L. I.....Shelby
Glenn, C. F.....Asheville
Gorman, J. A.....Asheville
Goodwin, J. C.....Dunn
Griffith, J. F.....Salisbury
Hall, B. F.....Asheville
Hall, C. B.....Goldsboro
Harper, H. D., Sr.....Kinston
Harper, H. D., Jr.....Kinston
Harris, F. S.....Henderson
Harris, M. M.....Elizabeth City
Hauser, L. A.....North Wilkesboro
Hays, Wm. A.....High Point
Hilliard, S. P.....Rocky Mount
Henderson, H. C.....Charlotte
Herndon, W. T.....Laurinburg
Holland, W. T.....Smithfield
Hooks, Oscar.....Wilson
Horton, H. V.....Winston
Horton, P. E.....Winston
Humphrey, L. M.....Greensboro
Hunt, F. L.....Asheville
Hunter, E. L.....Fayetteville
Ihrie, J. H.....Pittsboro
James, D. L.....Greenville
Jeter, I. P.....Morganton
Johnson, J. N.....Goldsboro
Jones, R. H.....Winston
Judd, J. H.....Fayetteville
Keerans, E. P.....Charlotte
Lennon, C. H.....Whiteville
Little, J. B.....Newton
Little, R. A.....Newton
Livermon, A. C.....Scotland Neck
Lynch, Wm.....Chapel Hill
Malone, S. E.....Goldsboro

Mann, I. M. ..... Asheville
Mann, L. H. ..... Middleton
McConnell, D. E. ..... Gastonia
McCrackin, F. W. ..... Sanford
McCrackin, J. T. ..... Durham
McDowell, C. H. ..... Waynesville
McIver, D. C. ..... Maxton
McPhail, I. M. ..... Clinton
Marler, J. G. ..... Yadkinville
Matthews, J. E. ..... Wilmington
Morrison, R. J. ..... Cherryville
Morrow, R. M. ..... Burlington
Mott, C. B. ..... Statesville
Nichols, R. T. ..... Rockingham
Norris, C. P. ..... Lillington
Osborne, J. C. ..... Lawndale
Osborne, J. R. ..... Shelby
Parker, H. R. ..... Trenton
Parker, J. M. ..... Goldsboro
Patterson, Geo. B. ..... Fayetteville
Perkins, F. E. ..... High Point
Perry, E. A. ..... Littleton
Pittard, J. T. ..... Henderson
Pitts, H. C. ..... High Point
Powell, C. G. ..... Potecasi
Ramsay, R. L. ..... Salisbury
Ramsay, W. B. ..... Hickory
Regan, C. W. ..... Laurinburg
Regan, J. D. ..... Lumberton
Reid, J. G. ..... Marion
Reid, L. G. ..... Lenoir
Robey, W. M. ..... Charlotte
Rominger, C. A. ..... Zion City, Ill.
Ross, T. T. ..... Nashville
Rowe, W. W. ..... Greensboro
Satterfield, H. E. ..... Durham
Scheffer, G. L. ..... Louisburg
Shackelford, E. W. ..... Durham
Sherrill, R. G. ..... Raleigh
Smathers, B. F. ..... Waynesville
Smathers, Wexler ..... Asheville
Smith, C. E. ..... Salisbury
Smith, W. T. ..... Wilmington
Smithson, C. F. ..... Rocky Mount
Smithwick, D. T. ..... Louisburg

Snell, H. .....Washington
Snipes, W. E.....Menola
Spurgeon, J. S.....Hillsboro
Squires, R. M.....Salemburg
Stanly, J. W.....Chadbourne
Thompson, C. A.....Wilson
Tucker, E. J.....Roxboro
Turner, V. E.....Raleigh
Vitou, E. C.....Goldsboro
Walters, H. N.....Warrenton
Ware, R. E.....Shelby
Warren, J. Ed.....Stoneville
Watkins, J. C.....Winston-Salem
Wheeler, J. H.....Greensboro
Whisnant, A. J.....Rutherfordton
Whisnant, J. F.....Henrietta
Whitaker, J. D., ...Raleigh
White, J. H.....Hobgood
White, L. .....Statesville
Whitehead, C. A.....Tarboro
Whitsett, G. W.....Greensboro
Wyche, J. E.....Greensboro
Yates, P. P.....Morrisville
Yelverton, J. H.....Fremont

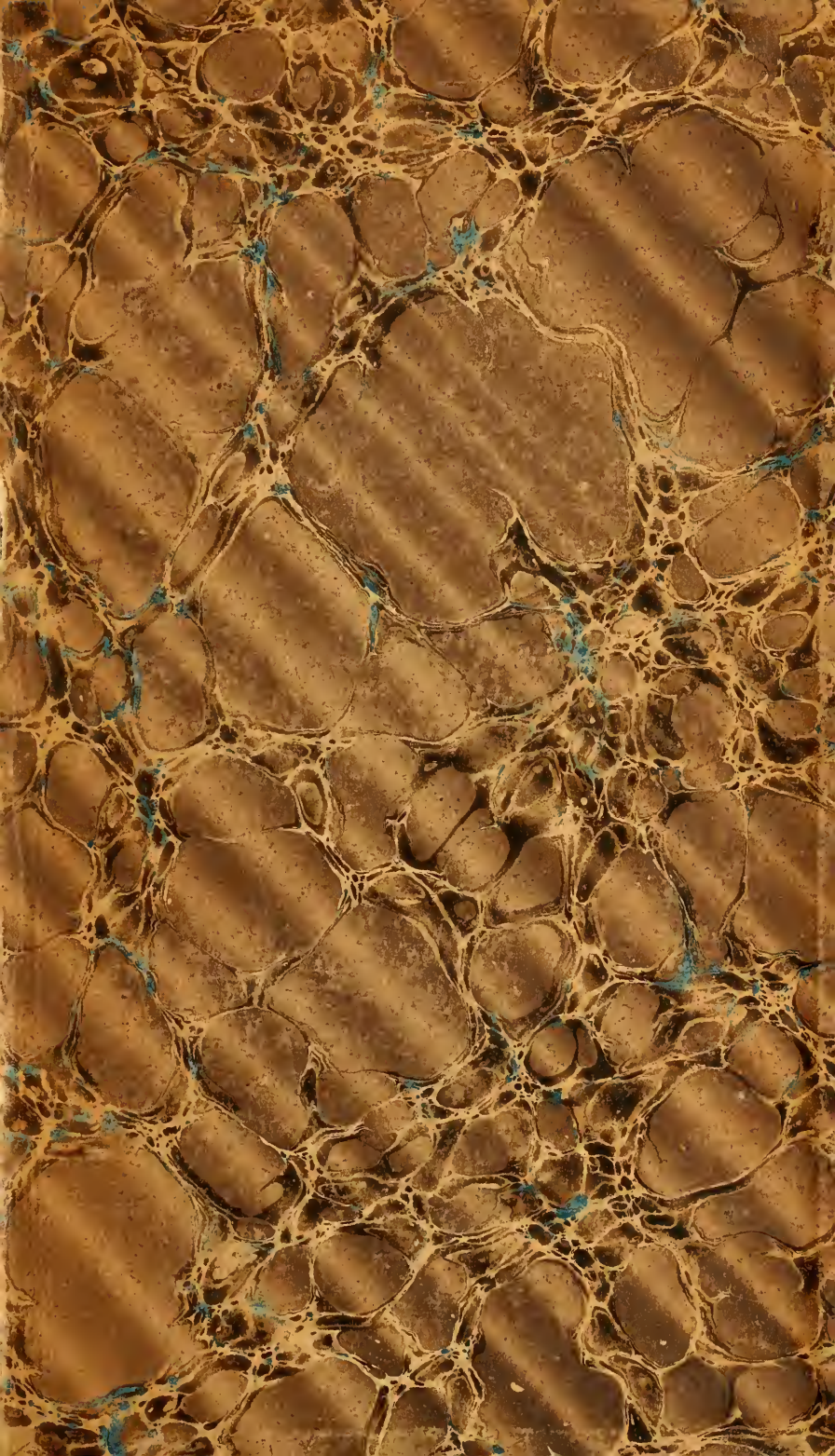
*Died since last meeting.

DELEGATES. 1905

List of Delegates to represent the North Carolina Dental Society, at the annual meeting of the National Dental Association.

Dr. F. E. Perkins.....High Point
Dr. W. Lee Ezzell.....Charlotte
Dr. I. N. Davis.....Oxford
Dr. L. L. Dameron.....New Bern
Dr. J. W. Carlton.....Spencer
Dr. J. H. Brooks.....Burlington
Dr. J. D. Biggs, Jr.....Williamston
Dr. L. I. Gidney.....Shelby
Dr. M. M. Harris.....Elizabeth City
Dr. N. T. Holland.....Smithfield
Dr. P. E. Horton.....Winston-Salem
Dr. C. H. Banks.....Louisburg
Dr. J. N. Johnson.....Goldsboro
Dr. I. M. Mann.....Asheville
Dr. D. C. McIver.....Maxton
Dr. C. P. Norris.....Lillington
Dr. R. G. Sherrill.....Raleigh
Dr. C. F. Smithson.....Rocky Mount
Dr. R. T. Allen.....Lumberton
Dr. E. W. Shackelford.....Durham
Dr. R. M. Squires.....Salemburg

LICENSES GRANTED.

The following passed the Examining Board at Waynesville, June 27, 1905:

B. C. Jones.....Manassas, Va.
G. G. Herr.....Waterbury, Conn.
E. W. Shackelford.....Durham
G. L. Scheffer.....Louisburg
T. A. Wilkins.....King's Mountain
J. C. Gamble.....Aster
L. M. Edwards.....Durham (Non Grad.)
N. L. Bryan.....Newton Grove
A. J. Whisnant.....Rutherfordton
C. M. Beam ..... Shelby
J. B. Bardin.....Cerro Gorda
S. E. Malone .....Gordonton
J. L. Greer.....Rutherfordton
I. M. McPhail.....Clinton
W. L. Hand. .....Burgaw
R. F. Holliday .....Clinton
P. P. Yates .....Mooresville
J. C. Johnson .....Meadville
A. M. Dula.....Black Mountain
J. H. Yelverton.....Fremont
R. A. Little .....Newton
J. L. Gibson .....Laurinburg
H. B. Gibson .....Laurinburg
R. S. Cutchin .....Whitakers
W. T. Wallace .....Hendersonville
T. A. Hargrove.....Canton
J. A. Emerson, (Col.).....Greensboro